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ANNOUNCEMENT 1923

THE Grand Rapids Growers Association is a co-operative buying and selling organization, establishing an effective sales service for distributing all products from the Hothouse, Farm and Garden. The part the Association plays in production is in its Seed Department, where it handles Pure Field and Garden Seeds. We solicit the patronage of all who appreciate quality.

Never in the history of our country have the growers so felt the necessity of united effort in the production and distribution of their products, and in using their collective purchasing power.

We take pleasure in presenting to you our Fourth Annual Catalog for your careful consideration.

THE GRAND RAPIDS GROWERS ASSOCIATION

R. Yonker, President.
 Wilfred S. Hannah, Vice-President.
 Rudolph Zant, Secretary-Treasurer.
 P. D. Leavenworth, Manager.

Special Notice We have made a specialty of supplying Market Gardeners (both upland and muck) with best strains of seeds for their purpose, and our thirty years of experience has given us some knowledge of their needs.

How to Order and Remit—Read Carefully

Write your name, postoffice, shipping point or nearest express office, your county and state.

PREPAID ORDERS. We prepay postage on all vegetable and flower seeds, in packets, ounces, quarter pounds, half pounds and pounds, at prices quoted herein, to any point in the United States, when cash accompanies the order. We do not prepay postage on Beans, Corn, Peas, Farm Seeds, Onion Sets, Potatoes, Bulbs, Fertilizer, etc. If wanted by Parcel Post, add postage. See Postal rates on this page.

BULK ORDERS OF SMALL SEEDS. We will Pay the Freight or Express Charges, our option, to any point in the United States on all orders amounting to Ten Dollars or more, provided the order is for small seeds only, when cash accompanies order. This does not include Peas, Beans, Corn, Potatoes, Onion Sets, Clover Seed, Grass Seed, Vetch, Rape, Implements, Fertilizers, Insecticides, Bulbs, Cow Peas or Grain of any kind which are shipped at purchaser's expense. If there is only a slight difference between freight and express charges, we will send by express in each instance. Remittances should be made by Postal Money Order, Express Money Order, Certified Check, or by Registered Letter.

C. O. D. ORDERS. If goods are to be sent C. O. D. or Sight Draft Bill of Lading Attached, 25 per cent, of the amount must accompany the order. Parties buying large quantities of any one variety will be quoted special prices on application. All prices are net, and while we do not think there will be any serious change, are made subject to change without notice.

PARCEL POST WEIGHT LIMIT. The weight limit within the first, second and third zones is now 70 pounds, and within all other zones 50 pounds. Shipments of 20 pounds or over are cheaper if sent by Express beyond the third zone.

DOMESTIC PARCEL POST RATES WITHIN U. S. AND POSSESSIONS, RATES FROM GRAND RAPIDS, MICH.

	1st lb.	Ea. add.
	or	lb. or
	Fra't'n	Fra't'n
1st Zone, within 50 miles of Grand Rapids...	.5c	1c
2nd Zone, within 150 miles of Grand Rapids...	.5c	1c
3rd Zone, within 300 miles of Grand Rapids...	.6c	2c
4th Zone, within 600 miles of Grand Rapids...	.7c	4c
5th Zone, within 1000 miles of Grand Rapids...	.8c	6c
6th Zone, within 1400 miles of Grand Rapids...	.9c	8c
7th Zone, within 1800 miles of Grand Rapids...	11c	10c
8th Zone, all over 1800 miles of Gd. Rapids...	12c	12c

If in doubt obtain your zone rate from your postmaster.

The seeds offered in this catalog have been carefully grown, selected, cleaned and tested for germination and we believe them to be first-class, but as so many conditions enter into making a crop, we give no warranty, either express or implied, as to description, purity or productiveness, and will not be responsible for the crop, except on pedigreed seeds, or seeds we have tested for purity. If the purchaser does not accept the goods on these terms, they are to be returned at once, and if paid for, the money will be refunded.

The Grand Rapids Growers Association

L. F. JONES, Manager Seed Department

COR. WEALTHY ST., AND
 IONIA AVE., S. W.

Grand Rapids, Michigan

Specialties for Market Gardeners

Early Jersey Wakefield Cabbage

(Special.) Our Jersey Wakefield Cabbage for the coming year is the same stock we sold last season. Therefore, it has been tested and we can guarantee it to be exceptionally fine. The very earliest strain of this early variety, heads very uniform in shape and size; small, all conical and firm and hard. Just the right size for retail trade. Oz., 20c; $\frac{1}{4}$ lb., 75c; lb., \$2.75, postpaid.

Celery

The New Golden Self Blanching

(Special.) This new type of Golden is grown in France, and in some ways seems to be an improvement on the old Paris Golden Self Blanching. It is a longer stalk and more vigorous and rapid grower, and not so badly affected by blight or disease. The plant seems to be an intermediate between the old Golden and Easy Bleaching and is probably the result of a cross between these two varieties, as was the new Golden Plume. It can be grown on muck, which will not grow the old Paris Golden Self Blanching either on account of exhausted condition of the soil or the soil being too badly infected with disease spores. Makes a magnificent growth of tall, broad flat stalks of a lighter shade of yellow. For an early Celery to market in August or September, it seems to be fine, and for that purpose it appears now to be a valuable addition to the Celery family. But we



The New Golden Self-Blanching Celery.



Early Jersey Wakefield Cabbage.

do not advise planting for the later market as this season it seems to become over ripe, and in many cases has come out of the trench very soft, and many of the stalks hollow. It was a very hard year to introduce a new variety. Price, \$1.00 per oz.; \$3.75 per $\frac{1}{4}$ lb.; \$7.00 per $\frac{1}{2}$ lb.; \$14.00 per lb., postpaid.

Easy Bleaching

(Special.) Our strain of this valuable variety is superior to most strains from the fact that it all bleaches evenly, leaving no green unbleached stalks. Does not become soft after bleaching, but remains firm, brittle and sweet. The stalks are very thick and quite tall, producing more eatable celery to the plant than any sort on the market. It is about two weeks later than the Golden Self Blanching, and may be used either for early or late celery. When grown for late celery, the seed should be sown later and transplanted from the middle to the last of July, and when trenched with dirt will keep till January and come out of the trenches firm and brittle. It has no superior as to eating quality or flavor. It is almost immune to blight and no crop has ever been lost from disease. This seed is eastern grown and is produced by an old celery grower who guarantees it to be the finest type of this grand variety. The seed we offer was grown in 1921 and has been tested by crop grown in the field. We have new seed grown in 1922, which will be tested next season and will be for sale the following year if all right. Price, \$1.50 per oz.; \$5.50 per $\frac{1}{4}$ lb.; \$10.00 per $\frac{1}{2}$ lb.; \$20.00 per lb., postpaid.

Golden Plume

The grandest new variety introduced in many years. It was the sensation of the season last summer. Blight does not seem to injure the plant. It seems to be an intermediate between the Golden Self Blanching and Easy Bleaching. While it is a yellow celery, it has a lighter shade of yellow than the Golden Self Blanching. Plant is a more vigorous grower, nearly as early, stalks are thicker and not quite so flat as our New Golden Self Blanching which it resembles. Bleaches easily and does not become soft after bleaching. Seed is very pure, no green stalks or off types appearing and no hollow stalks. Plants very large and will turn out more boxes to the acre than any variety grown. While the price of the seed is high, your investment for an acre of the Golden Plume is not high, considering the quality and price the grower obtains for the product. We will have a limited quantity of 1922 grown seed to offer subject to germination test. Price, \$4.50 per oz.; \$16.00 per $\frac{1}{4}$ lb.; \$30.00 per $\frac{1}{2}$ lb.; \$60.00 per lb., postpaid.

CELERY—Continued

Newark Market (Special.) A large, vigorous growing sort, nearly immune to celery blight or other diseases. Of the easy bleaching type but stalks much thicker and more free from suckers, and is a better keeper and holds the color better after being bleached. Splendid quality and very handsome golden yellow when bleached. Oz., \$1.50; $\frac{1}{4}$ lb., \$6.00; lb., \$20.00, postpaid.

Pride of the Market (Special.) A dwarf thick-stalked variety, vigorous grower, not easily blighted, and yields about as many boxes per acre as the White Solid, but not so good a keeper, and should be marketed after the Golden Self-Blanching and before the White Solid. Our seed is grown by the originator. Oz., \$1.60; $\frac{1}{4}$ lb., \$6.00; lb., \$22.00, postpaid.

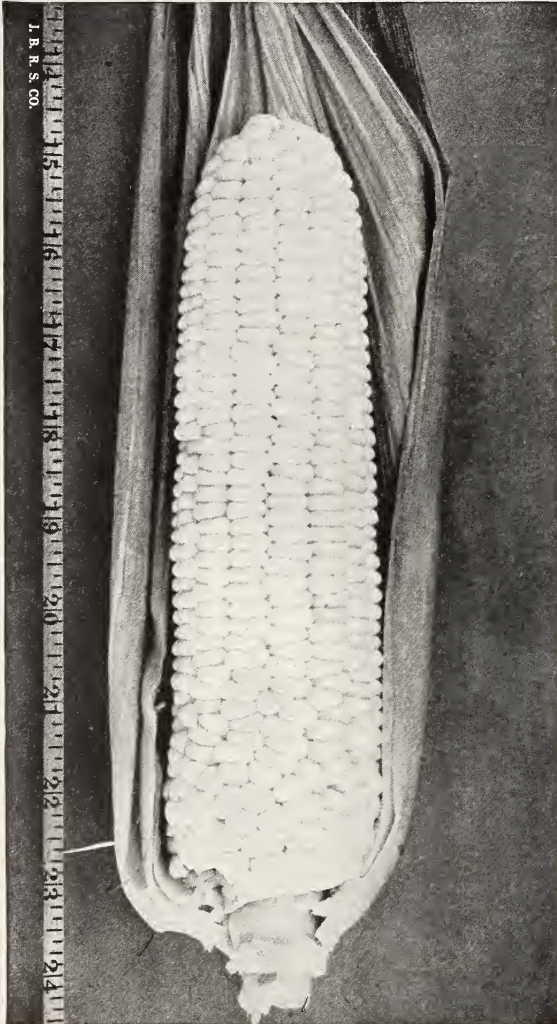
Chinese or Celery Cabbage

Pe-Tsai This new vegetable is becoming more popular every year and has generally been a money-maker for the market gardener. It has a delicate cabbage flavor, much milder than cabbage. The outer stalks may be eaten with salt like celery, or it makes a very delicious salad; can be used for cold slaw, or cooked like cabbage or used as spinach. The seed should not be sown till June or July, as the early sowing generally runs up to seed. They should be transplanted in rows about twenty inches apart and twelve inches apart in the row. The seed we offer was tested last season and we can guarantee it to be true to type and of the best quality.

Chihili This variety gives the best satisfaction here, especially when grown on muck. The heads are long, about sixteen inches, rather slim, coming to a point at the peak. Color a very dark bluish green, with the inner leaves and stalks blanched to a beautiful snow white. Oz., 50c; $\frac{1}{4}$ lb., \$1.75; lb., \$5.00, postpaid.



Chinese or Celery Cabbage, Pe-Tsai.



Bantam Evergreen Sweet Corn.

Sweet Corn

Pink Cob Cory (Special.) The earliest corn in existence. A week earlier than the Early White Cob Cory. Stalks short; ears close to the ground. Cob when ripe a bright pink, tinging the grain a reddish pink. Kernels white when ready for use. Quart, 25c; peck, \$1.75; bu., \$6.00.

Bantam Evergreen (Special.) This new variety combines all of the good qualities of the Golden Bantam and the Stowell's Evergreen. It has the bright golden color and tender kernels of the Golden Bantam and the flavor and sweetness of the Stowell's Evergreen. Ears much larger than the Bantam, but not quite as large as the Evergreen. Much earlier than Evergreen. Stalks are full leaved and usually bear two well developed ears. Not postpaid, price, qt., 25c; pk., \$1.75; bu., \$6.00.

Cucumber

Grand Rapids Forcing A selection from the old Rawson's Forcing White Spine Cucumber. One of our growers found one vine which differed from the others in bearing a heavier crop of superior cucumbers. Superior both in shape and color. By years of careful selection he has developed the present Grand Rapids Forcing Cucumber. It is a very heavy cropper. Fruit very symmetrical and beautiful in color, and breeds true to type. Price, oz., \$5.00; $\frac{1}{4}$ lb., \$15.00; lb., \$50.00, postpaid.

Lettuce

Washington Strain of Grand Rapids Forcing

(Special.) This splendid strain was first produced by plant selection of the honored W. W. Tracy of the Agricultural Department at Washington. Mr. Yonkers procured some from Eugene Davis, sent him by Mr. Tracy. Mr. Yonkers, by careful plant selection, has kept it up to its original purity. It is absolutely true to type and is more like the original Grand Rapids Forcing as it came from the hands of Eugene Davis. Mr. Yonkers is well qualified to continue the breeding of this variety and can be depended upon to keep it up to its present high standard. There are very few if any sports. Color a light green; heads very heavy; leaf crisp, tender and curly; quality of the best. We are sold out on home grown seed of this strain, and on account of climatic conditions we have given up the idea of growing the seed here, as the yield is unsatisfactory; but shall grow our stock seed in the



Washington Strain of Grand Rapids Forcing Lettuce.

greenhouse and send to one of the best Lettuce seed growers on the Coast to grow the seed crop. We have a good supply of seed grown by this grower, for which we furnished the stock seed last spring. This seed has been tested by having a crop grown from it this winter, which is now ready to cut. This seed is equal in every way to the home grown seed. Oz., 30c; $\frac{1}{4}$ lb., \$1.00; lb., \$3.00.



J. B. R. S. Co

Big Boston Lettuce.

Big Boston (Special.) Our Big Boston Lettuce Seed is grown for us by one of the most careful firms of seed growers in the world. They take the utmost pains in pedigree breeding from individual plant selection. Their Big Boston does not run to seed and makes very large, firm heads, which blanch to a beautiful golden color, and every plant makes a head. It heads best in the cool weather of early spring and late fall. We do not recommend it for the hot summer months. Oz., 15c; $\frac{1}{4}$ lb., 40c; lb., \$1.50, postpaid.

All Seasons Heads very large, grayish green, leaves rather thick but blanch to a beautiful golden yellow. This variety wants hot weather to head well and is not satisfactory for early spring crop. Postpaid, oz., 10c; $\frac{1}{4}$ lb., 35c; lb., \$1.25.

Cantaloupe

Hearts of Gold Pedigreed seed. Our seed is grown for us by the well known Roland Morrill who produced Hearts of Gold, Osage, and other varieties. Mr. Morrill says in his letter of November 15th: "Hearts of Gold is no doubt new to many of your members, but not so to the trade, as the best trade in Grand Rapids, Muskegon, and all points north have been paying a fine premium on all they could get the past few years. Personally, I have been able to get at least double the net money received for any other variety in my markets for several years, and expect to continue doing so. I have never been able to grow enough for my trade and just as long as this condition exists seed will be high for any man will sell melons rather than save seed at the same money. I have been saving seed for sale for the past four or five years, but several varieties looking a little like Hearts of Gold are being substituted for it with the result that today I believe only a small percentage of seed offered as Hearts of Gold is genuine. Much of it is Burrell's Gem, Hoodoo or Paul Rose; the last two of which I originated. As you no doubt remember, I originated the Osage and sold the first lot of seed for a fabulous price, and in five years it was impossible for me to find any genuine unmixed seed. Carelessness has ruined the variety. Hearts of Gold is starting over the same route, but after the Osage experience, I shall protect the Hearts of Gold by saving a limited amount of pure seed each year for those who want it, but never in competition for price, as I am constantly improving the strain." The Morrill's famous Hearts of Gold is the result of an accidental cross between the "Osage" and "Netted Gem," and Hearts of Gold combines the thick golden flesh of the Osage with the heavy netting and tough thin rind of the Netted Gem or Rocky Ford. It is about 25 per cent larger than the Gem, fully as uniform in size and equal as a keeper or shipper. The Hearts of Gold is the most delicious fruit grown on tree or vine and is produced in 70 days from planting and will give daily picking of fruit from 30 to 60 days, depending on weather conditions. The Hearts of Gold in repeated tests along side so called rust resist-



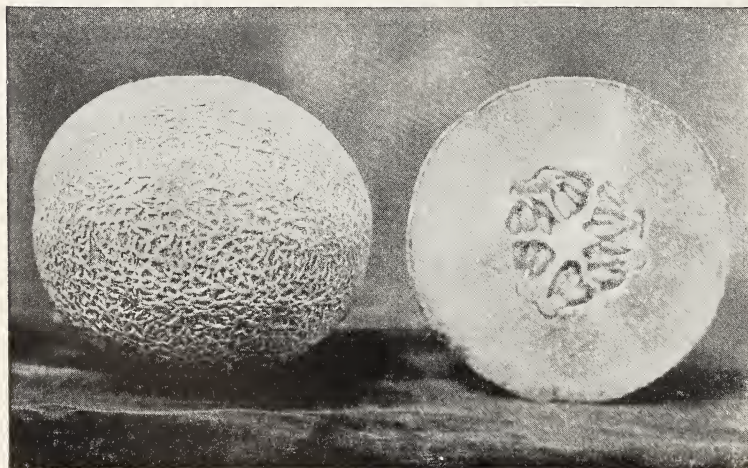
Hearts of Gold Cantaloupes.

ant varieties held up with the best of them. Hearts of Gold is remarkably hardy, and has withstood heavy late frosts that killed other leading varieties, and has made a crop. Last season a few of our gardeners purchased a small quantity of seed of Hearts of Gold from Dr. Morrill, and they literally ran away with the market, and the few lucky gardeners who grew Hearts of Gold made huge profits, but could not begin to supply the demand. Hearts of Gold were a gold mine for the grower, and created the greatest sensation since the Osage first appeared years ago. Hearts of Gold should be called "Ambrosia, food for the Gods." Oz., 60c; ¼ lb., \$1.75; lb., \$5.25, postpaid.

Muskmelons

Extra Early Osage (Special.) A very fine melon of the Osage type. Seed cavity very small. Flesh deep, rich yellow color, very sweet and delicious. At least one week earlier than the Osage melon, smaller, vine prolific. Price, postpaid, oz., 15c; ¼ lb., 40c; lb., \$1.50.

Edwards' Perfecto (Special.) A new variety developed from Eden Gem, and the best of the Rocky Ford class. Fruit very uniform in size, nearly round and densely covered with a hard gray netting. Flesh very thick and of a beautiful salmon color, shading to green as it nears the rind. Perfecto has the deepest flesh and smallest seed cavity of any type of the Rocky Ford. Good shipping melon, extremely productive and most delicious eating. The coming market melon. Oz., 15c; ¼ lb., 40c; lb., \$1.50, postpaid.



Edwards' Perfecto Muskmelons.

The Bender (Special.) A new yellow-fleshed melon, becoming very popular in the East. This is a selection from the Surprise. Splendid keeper and shipper. Melon is large netted. Flesh very deep, sweet and delicious. Oz., 15c; ¼ lb., 40c; lb., \$1.50; postpaid.

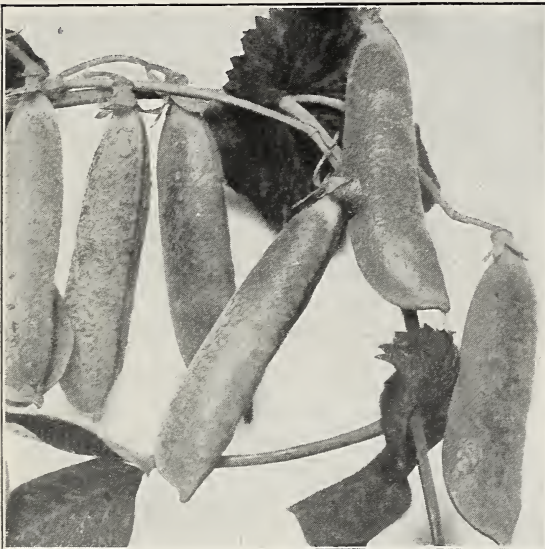
Peppers

Harris' Earliest (Special). The earliest large pepper grown. The early fruits always brings the price. Plant dwarf compact in habit of growth, most prolific. Peppers bell shaped about four inches long. Mild and sweet. The plants are literally covered with fruit. There are often a dozen large ripe peppers on a plant at one time, and many green ones. They can be planted more closely together than other varieties, and an immense number can be produced on a small plot of ground. Oz., 50c; ¼ lb., \$1.75; lb., \$6.00, postpaid.

World Beater (Special). The most prolific, large pepper. Fruit very large, about five inches long. Flesh thick, mild and sweet. Pepper tapering and of a bright ruby red color when ripe and very attractive. Price, postpaid, oz., 50c; ¼ lb., \$1.75; 1 lb., \$6.00.



Harris' Earliest Peppers.



Sutton's Excelsior Peas.

Peas

Dark Podded Sutton's Excelsior

(Special). An excellent extra early, dwarf variety, of highest quality. Height fourteen inches, foliage dark green. Vine stout and healthy. Pods three and one-half inches long, straight, round and square ended, containing six to eight large, dark green peas. Exceedingly productive. Price, postpaid, qt., 40c; pk., \$2.50; bu., \$9.00.

Improved Laxtonian (Special). The best of the Laxtonian type. Second early. A little earlier than the Gradus. Vine 16 inches high, sturdy, dark green and productive; pods dark green, four inches, broad, containing eight large peas of excellent quality. The best second early big podded sort. Price, not postpaid, qt., 40c; pk., \$2.50; bu., \$9.00.

Dwarf Telephone (Special). A splendid main crop pea, coming between the Telephone and Stratagem. Of the Stratagem type, but a heavier yielder. Height, two and one-half feet. Foliage very heavy, sturdy and dark green. Pods four and one-half inches long, dark green, broad, straight and pointed, containing nine large, medium dark green peas of the best quality. Price, not postpaid, qt., 40c; pk., \$2.50; bu., \$9.00.

Strawberry Plants

We have made arrangements with a local strawberry expert who grows his own plants to sell both everbearing plants as well as other commercial varieties, at the following prices:

Variety.	25	100	1000
Watson's Prolific (Per.)	\$.075	\$1.75	\$10.00
Progressive (Per.)	.75	1.75	10.00
Early			
Premier (Per.)	.50	1.00	6.00
Medium Early			
Senator Dunlap (Per.)	.50	1.00	4.00
Dr. Burrill (Per.)	.50	1.00	4.00
Warfield (Imp.)	.50	1.00	4.00
Medium Late			
Gibson (Per.)	.50	1.00	5.00
Wm. Belt (Per.)	.50	1.00	6.00
Uncle Jim (Per.)	.50	1.00	6.00
Late			
Kellogg's Prize (Imp.)	.50	1.00	6.00
Aroma	.50	1.00	6.00
Ridgeway	.50	1.00	6.00



Progressive Everbearing Strawberry.



Grand Rapids Forcing Radishes.

Tomatoes

Red Head A large globe-shaped, bright scarlet Tomato, coming in with Chalk's Early Jewel, but as large as the Stone. Very solid, better yielder than either Stone or Greater Baltimore. One canner reported that last year it yielded 50 per cent more than either of the above. Oz., 40c; $\frac{1}{4}$ lb., \$1.50; lb., \$5.00, postpaid.

Radishes

Grand Rapids Forcing

(Special.) This seed is saved from selected bulbs of the best type of Globe Radish. The seed is grown on land free from volunteer radishes and is very pure. Tops are very small, in fact, radishes are ready to pull before you realize it, on account of the small tops. Every seed makes a handsome dark red globe-shaped bottom, which rarely becomes pithy. They should not be forced with too much heat as it causes some to split. Price, postpaid, oz., 10c; $\frac{1}{4}$ lb., 30c; 1 lb., \$1.00.

Tomatoes

Grand Rapids Forcing

This variety was originated by the late Mr. John Wieringa. The Grand Rapids Forcing is as great an acquisition to the line of forcing vegetables as was the Grand Rapids Forcing Lettuce. The intense sexual vigor of the plant causes a great production of pollen, and insures an immense setting of fruit. It is probably the only tomato that is self-fertilizing. Plant is a vigorous robust grower, and should be trimmed to about six feet in height. The fruit is a good red color, fair size, firm and meaty. Skin is tough and it will stand shipping for long distances. Under favorable growing conditions each plant should produce eight pounds of marketable fruit. Our seed is saved from greenhouse grown tomatoes. Postpaid, oz., \$3.00; $\frac{1}{4}$ lb., \$10.00; 1 lb., \$30.00.



Grand Rapids Forcing Tomatoes.

Wayahead A potato-leaved Earliana. Earlier than the Earliana. Smooth red fruit and very prolific; has the heavy yielding qualities of the Earliana and fruit much better. Oz., 60c; $\frac{1}{4}$ lb., \$2.00; lb., \$7.50, postpaid.

Asparagus

CULTURAL DIRECTIONS. One ounce of seed will sow 50 feet of drill and produce about 200 plants. If starting from seed plow or spade under a liberal amount of Pulverized Hen Manure, drag or rake the seed bed, breaking all lumps, and making the soil fine. Then apply a good top dressing of Hen Manure, raking it in well. Drill the seed in rows about eighteen inches apart, covering seed one inch. When the plants are up cultivate well, keep free from weeds and they should be all right to transplant to permanent beds the following spring. The soil cannot be made too rich. Use well rotted stable manure or Pulverized Hen Manure, and mix well with the soil. For home garden have the rows two or three feet apart and a foot apart in the row. For field culture, the rows should be four feet apart. Make broad trenches about a foot deep and fill in about three or four inches with well rotted stable manure, put two inches of dirt on top of manure, then set the plants, spreading the roots and cover with an inch of soil. As the plants grow, gradually fill the trenches till the bed or field is level. Do not cut the plants till the third year. Every fall before the seed is ripe, cut tops and burn them, and give good top dressing of manure. Remember, the bed well planted will last for at least twenty years. Treat it well.

PALMETTO. Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 60c, postpaid.

CONOVER'S COLOSSAL. Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 60c, postpaid.

GIANT ARGENTEUIL. Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 75c, postpaid.

Asparagus Roots

PALMETTO. Two-year-old, \$1.25 per 100; \$10.00 per 1000, not postpaid.

WASHINGTON. One-year-old, \$2.25 per 100; \$20.00 per 1000, not postpaid.

Beans

CULTURAL DIRECTIONS. One quart to 100 feet of drill; about three-fourths bushel per acre of Bush Beans. Beans thrive on a rich, warm, light soil. It is not safe to plant until about the middle of May, as the seed will rot in cold, wet ground, and the plants will not stand frost. Plant dwarf beans in rows two feet apart and from four to six inches apart. Lima Beans should not be planted until June first, when the soil is thoroughly warmed through. Limas will rot in cold ground.

REFUGEE or 1000 TO 1. Qt., 40c; pk., \$2.50; bu., \$9.00, not postpaid.

KENTUCKY WONDER. Qt., 40c; pk., \$2.50; bu., \$9.50, not postpaid.

DUTCH CASE KNIFE. Qt., 40c; pk., \$3.00; bu., \$11.00, not postpaid.

SIEBERT'S EARLY LIMA. Qt., 50c; pk., \$3.50; bu., \$12.00, not postpaid.

KING OF THE GARDEN LIMA. Qt., 50c; pk., \$3.50; bu., \$12.00, not postpaid.

BURPEE'S IMPROVED BUSH LIMA. Qt., 50c; pk., \$3.60; bu., \$14.00, not postpaid.

HENDERSON'S BUSH LIMA. Qt., 50c; pk., \$3.50; bu., \$13.00, not postpaid.

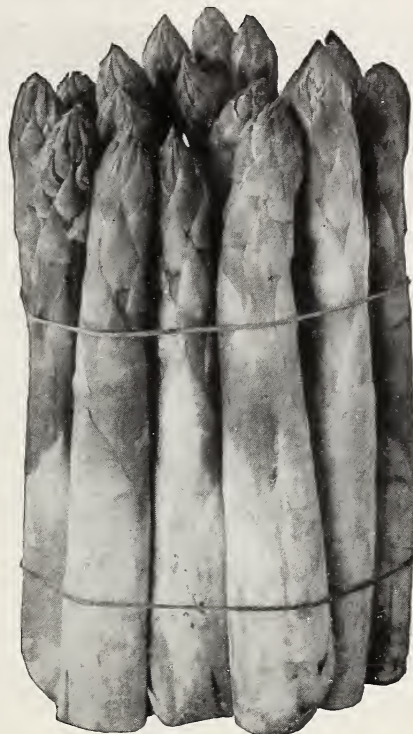
BURPEE'S STRINGLESS GREEN POD. A very desirable dwarf, green podded sort for either home garden or market. Pods five to six inches long, thick, fleshy and perfectly stringless. Very tender and delicious. Qt., 40c; pk., \$3.00; bu., \$12.00, not postpaid.

PROLIFIC BLACK WAX (or German Black Wax). The earliest Wax Bean. Pods short, curved, slightly flattish. Qt., 40c; pk., \$2.50; bu., \$9.00, not postpaid.

IMPROVED GOLDEN WAX. One of the earliest dwarf wax sorts. Pods flat, long, beautiful golden yellow, tender and stringless. Qt., 30c; pk., \$2.25; bu., \$8.00, not postpaid.

DAVIS KIDNEY WAX. Seed white, pods very long, straight, flat, white, wax-like, and very attractive. If picked when young, the pods are tender and stringless but if left too long become rather hard. Extremely productive. Qt., 40c; pk., \$3.00; bu., \$10.00, not postpaid.

PENCIL POD BLACK WAX. Pods round, very long, tender, and entirely stringless. Extremely productive. Best market gardeners sort. Qt., 30c; pk., \$2.40; bu., \$9.00, not postpaid.



Palmetto Asparagus.



J.B.R.S.Co.

Davis Kidney Wax Beans.



J.B.R.S. Co.

Crosby's Egyptian Beets.

Swiss Chard

CULTURAL DIRECTIONS. One ounce to fifty feet of drill; five pounds per acre. Sow early in the spring, in rows eighteen inches apart and thin to one foot apart. The plants are of very rank growth, and will continue to grow and produce all summer and if given a little protection during the winter, will live and produce early greens in the spring.

LUCULLUS. Leaves large and curly. Plant grows about two feet high, midribs are very broad and are a good substitute for Asparagus during the summer months. Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 60c, postpaid.

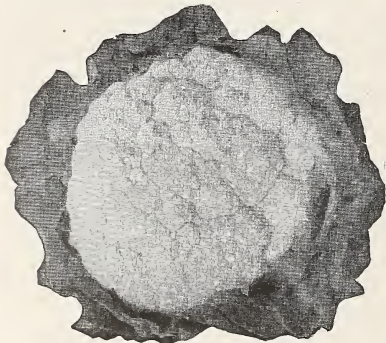
Brussels Sprouts

CULTURAL DIRECTIONS. Same as for cabbage.
HALF DWARF. Oz., 20c; $\frac{1}{4}$ lb., 60c; lb., \$2.00, postpaid.

Broccoli

Very hardy and much easier to grow than Cauliflower. Later than Cauliflower and cultural directions the same.

WHITE CAPE. Oz., 40c; $\frac{1}{4}$ lb., \$1.50; lb., \$5.00, postpaid.



Broccoli, White Cape.

Beets

CULTURAL DIRECTIONS. One ounce to fifty feet of drill. Five or six pounds per acre. Do not use stable manure if you want smooth beets with but few roots. Beets thrive on deep, rich sandy land. For early crop sow in drills one foot apart, cover seed one inch. Sow as early as the ground can be worked in the spring. When plants are large enough to use as greens, thin to three inches apart in the row. Beets can be sown as late as July for main crop.

CROSBY'S EGYPTIAN. Oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 80c, postpaid.

DETROIT DARK RED. Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 75c, postpaid.

ECLIPSE. Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 60c, postpaid.

LONG DARK BLOOD. Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 60c, postpaid.

EARLY BLOOD TURNIP. Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 60c, postpaid.

Mangel or Stock Beets

CULTURAL DIRECTIONS. One ounce to fifty feet of drill; six pounds per acre. Sow early in the spring, in rows about two feet apart; cover seed one and one-half inches deep, pressing the ground firmly over the seed. When plants are three inches high thin to about eight inches apart in the row. The plants pulled may be used for greens.

MAMMOTH LONG RED. Oz., 10c; $\frac{1}{4}$ lb., 15c; lb., 50c, postpaid.

GOLDEN TANKARD. Oz., 10c; $\frac{1}{4}$ lb., 15c; lb., 50c, postpaid.

Sugar Beets

Sugar Beets and Mangels are of great value for stock feeding, because of the improved health and condition of the animals, increased flow and quality of milk, and because of the saving in fodder. The yield is enormous, and the cost of growing is trifling. Grow a patch of them for winter feed. They are also excellent for poultry.

GIANT FEEDING SUGAR. Oz., 10c; $\frac{1}{4}$ lb., 15c; lb., 40c, postpaid.

LANE'S IMPERIAL SUGAR. Oz., 10c; $\frac{1}{4}$ lb., 15c; lb., 40c, postpaid.



J.B.R.S. Co.

Swiss Chard, Lucullus.

Cabbage

CULTURAL DIRECTIONS. One ounce will produce about 2000 plants; 10,890 plants will plant an acre of early cabbage; and 7,260 plants for an acre of late. Eight ounces of seed will plant an acre of early and four ounces an acre of late cabbage. For early cabbage, sow seed in hot beds in January or February. Transplant as early as possible to the open ground about two feet apart each way. For late cabbage, sow seed in the open ground in May and transplant about July first in rows 2½ feet each way.

EARLY JERSEY WAKEFIELD. (See Specialties.) Oz., 25c; ¼ lb., 80c; lb., \$2.75, postpaid.

EARLY WINNIGSTADT. Medium early, short stemmed, heads solid, fine grained, cone shaped and pointed. Oz., 20c; ¼ lb., 75c; lb., \$2.50, postpaid.

CHARLESTON or LARGE WAKEFIELD. About a week later than the Early Jersey Wakefield. Heads are larger, fully as solid, and less pointed. Oz., 20c; ¼ lb., 75c; lb., \$2.50, postpaid.

COPENHAGEN MARKET. Nearly as early as the Jersey Wakefield. Stems short, heads large, round and solid, with few outer leaves. Oz., 30c; ¼ lb., \$1.00; lb., \$3.00, postpaid.

ALL SEASONS. Heads large, round and very deep; can be planted for early or late crop. Good keeper. Oz., 20c; ¼ lb., 60c; lb., \$2.00, postpaid.

HENDERSON'S EARLY SUMMER. Second early, round-headed sort. Follows Early Jersey Wakefield. Oz., 20c; ¼ lb., 60c; lb., \$2.00, postpaid.

PREMIUM FLAT DUTCH. Heads large, round, flattened and quite firm. Has medium stem and is very hardy. Oz., 20c; ¼ lb., 60c; lb., \$2.00, postpaid.

SUREHEAD. All sure to head. Late Cabbage, of the Flat Dutch type; a splendid keeper. Oz., 20c; ¼ lb., 60c; lb., \$2.00, postpaid.

DANISH BALLHEAD. Short stemmed, heads round, very solid and heavy. Splendid keeper, hardy, and the best winter sort. Oz., 20c; ¼ lb., 75c; lb., \$2.50, postpaid.

AMERICAN SAVOY. Large, flattish heads, very curly and hard. One of the best Savoy. Oz., 20c; ¼ lb., 60c; lb., \$2.50, postpaid.

RED STONEHEAD. Almost identical in shape, size and hardness with the Danish Ballhead. The head is solid, heavy, and the dark red, rich color reaches farther toward the center than any other of the red sorts. Oz., 25c; ¼ lb., \$1.10; lb., \$4.00, postpaid.

MAMMOTH ROCK RED. Heads solid, of good size and quality. Oz., 20c; ¼ lb., 60c; lb., \$2.50, postpaid.



Danish Ballhead Cabbage.

Chinese Cabbage

CULTURAL DIRECTIONS. One ounce will produce 2,000 plants. Do not sow seed till the last of May, as earlier sowing generally results in most of the plants going to seed instead of making heads. Seed may be sown in seed beds and transplanted in rows three feet apart and about fifteen inches apart in the row, or may be sown in rows and thinned. For late crop may be sown as late as August tenth. Late crop is generally trenched with boards. Make trench about six feet wide, pull the head, cutting off roots and place side by side in trench. Bank outside the boards with dirt and protect the tops with straw, putting boards over top. Remove as wanted during early winter months.

Chihili

(Special.) This variety has always given the best satisfaction, both on account of purity and for the reason that it can be depended upon to head instead of running up to seed. It has been planted in May, without showing seeders, but we do not advise sowing seed until June. Heads about 16 inches, coming to a sharp point at the peak. Very solid and heavy. Midribs broad and thick, blanches to a beautiful white, very handsome when trimmed for the market. Mild, semi-cabbage flavor; outside leaves dark bluish green. Oz., 50c; ¼ lb., \$1.50; lb., \$5.00, postpaid.

Cress or Pepper Grass

CULTURAL DIRECTIONS. Sow early in the spring in rich, well prepared soil, in rows about fifteen inches apart. Thin to four inches apart in the row.

EXTRA CURLED. Oz., 10c; ¼ lb., 20c; lb., 60c, postpaid.

Corn Salad

CULTURAL DIRECTIONS. One ounce for 100 feet of drill. Sow in August or September for fall or spring use. Drill about one inch deep in rows twelve inches apart. Thin and keep free from weeds. Protect in winter by light covering of straw. Use as a salad.

LARGE SEEDED. Oz., 10c; ¼ lb., 30c; lb., \$1.00, postpaid.



Premium Flat Dutch Cabbage.



Select Snowball Cauliflower.

well with the soil. Plant about eight seeds to the hill. Sprinkle the vines with Slug Shot to drive away the striped bugs. When all danger from insects is past, thin to three or four of the strongest plants. Spray regularly with a 20-80% Copper Lime Dust, to prevent blight and wilt. To prevent disease, do not allow wild cucumbers, milk weeds or poke weed to grow near either cucumbers or tomatoes.

EARLY FORTUNE. A selection from the Davis Perfect. Early plant, vigorous, with heavy thick foliage and of the most productive sorts now grown. Fruit symmetrical, about nine inches in length, round and a beautiful dark green in color, which does not fade. Flesh very brittle and crisp, with small seed cavity, and seeds are not tough, until they begin to ripen. Oz., 10c; ¼ lb., 30c; lb., \$1.00, postpaid.

DAVIS' PERFECT. One of the products of our Eugene Davis. A hybrid produced by crossing the White Spine variety with a long English forcing cucumber. The Davis Perfect is one of the most prolific sorts, taking on the bearing qualities from the White Spine, and color and length from the English parent. The fruit is long, slim, and holds color till nearly ripe. Oz., 10c; ¼ lb., 30c; lb., \$1.00, postpaid.

EARLY CLUSTER. Oz., 10c; ¼ lb., 30c; lb., \$1.00, postpaid.

IMPROVED LONG GREEN. Oz., 10c; ¼ lb., 30c; lb., \$1.00, postpaid.

EARLY WHITE SPINE. Oz., 10c; ¼ lb., 30c; lb., \$1.00, postpaid.



Danvers Half Long Carrots.

Cauliflower

CULTURAL DIRECTIONS. One ounce of seed will produce 2,000 plants. Four ounces of seed will plant an acre. Directions about the same as Cabbage, except planting in rows about three feet apart and eighteen inches apart in the row. When plants begin to head, the leaves should be tied up around the heads to protect them from the sun.

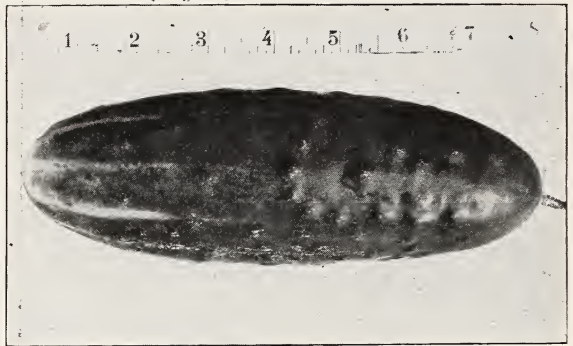
SELECT SNOWBALL. A very fine strain of this variety grown from selected heads. Oz., \$2.00; ¼ lb., \$7.00; lb., \$25.00, postpaid.

DWARF ERFURT. Very early. Oz., \$1.50; ¼ lb., \$5.00; lb., \$18.00, postpaid.

Cucumbers

CULTURAL DIRECTIONS. One quart of seed to fifty hills. One to two pounds per acre. Do not plant near wild cucumbers, or milk weeds, as these plants carry the spores of cucumber wilt. Cucumbers should not be planted until the ground is warm, about June first. For pickles, they may be planted as late as July first. They require a warm, rich sandy soil. Plant in hills about four feet apart. Prepare the hills by mixing about half a small shovelful of Pulverized Hen Manure

and Sprinkle the vines with Slug Shot to drive away the striped bugs. When all danger from insects is past, thin to three or four of the strongest plants. Spray regularly with a 20-80% Copper Lime Dust, to prevent blight and wilt. To prevent disease, do not allow wild cucumbers, milk weeds or poke weed to grow near either cucumbers or tomatoes.



Early Fortune Cucumber.

WESTERFIELD'S or CHICAGO PICKLING. The vines commence bearing when very young, and continue longer than any other pickling variety. Fruit of medium size, pointed at both ends, and make a firm pickle. Oz., 10c; ¼ lb., 30c; lb., \$1.00, postpaid.

Carrots

CULTURAL DIRECTIONS. One ounce to 100 feet of drill; two pounds per acre. For early crop, sow in April or May, and June to July for late. Sow seed half an inch deep in rows 12 inches apart and thin to three inches apart in the row. Plant in rich, sandy loam.

FRENCH SHORT HORN. Very early bunching Carrot; best for forcing. Roots orange red in color, about three inches long, tender and sweet. Oz., 10c; ¼ lb., 25c; lb., 90c, postpaid.

CHANTENAY. A medium early, half-long variety for the early market. Roots five or six inches long, smooth and tapering; orange red in color. Used largely for bunching. Oz., 10c; ¼ lb., 20c; lb., 75c, postpaid.

DANVERS' HALF LONG. The best main crop sort. Roots smooth and handsome. Very productive. Oz., 10c; ¼ lb., 20c; lb., 75c, postpaid.

LONG ORANGE. Good variety for deep, sandy soil. Oz., 10c; ¼ lb., 20c; lb., 60c, postpaid.

GUERANDE or OXHEART. Very short, thick and stubby. Very desirable for heavy clay soil, as it is easily harvested. Oz., 10c; ¼ lb., 20c; lb., 60c, postpaid.

WHITE BELGIAN. Large white stock carrot. Oz., 10c; ¼ lb., 15c; lb., 50c, postpaid.

YELLOW BELGIAN. Grows one-third out of the ground. Very large, long yellow stock carrot. Oz., 10c; ¼ lb., 15c; lb., 50c, postpaid.

Celery

CULTURAL DIRECTIONS. One ounce will produce from 5,000 to 10,000 plants. Two ounces per acre. Muck soil is best for Celery, but good Celery may be grown on rich loamy soil if water can be applied freely. Celery needs manure and fertilizer. Pulverized Hen Manure gives excellent results, and a 2-8-15% Commercial fertilizer pays. For early crop sow seed in hotbeds or greenhouse in March. Make seed bed very fine, sow seed broadcast and pack soil. Transplant in June in rows three or four feet apart. Early Celery is bleached with boards or paper. For late crop sow seed in April or May in open seed beds and transplant in July. Bank with muck or dirt and trench in the field in October.

WHITE PLUME. Very early. Stalks bleach a beautiful white. Oz., 25c; ¼ lb., 80c; lb., \$3.00, postpaid.

GOLDEN PLUME. (See Specialties.) Oz., \$4.50; ¼ lb., \$16.00; ½ lb., \$30.00; lb., \$60.00, postpaid.

NEW GOLDEN SELF-BLANCHING. (See Specialties.) Oz., \$1.00; ¼ lb., \$3.75; ½ lb., \$7.00; lb., \$14.00, postpaid.

EASY BLEACHING. (See Specialties.) Oz., \$1.50; ¼ lb., \$5.50; ½ lb., \$10.00; lb., \$20.00, postpaid.

FORDHOOK EMPEROR. Oz., 50c; ¼ lb., \$1.75; ½ lb., \$3.00; lb., \$6.00, postpaid.

GOLDEN SELF-BLANCHING. Old strain, French grown seed. Short and compact. Stalks and heart deep golden yellow. Oz., 50c; ¼ lb., \$1.75; lb., \$6.00, postpaid.

GOLDEN SELF-BLANCHING. American grown seed. Oz., \$1.00; ¼ lb., \$3.50; lb., \$12.00, postpaid.

LARGE-RIBBED DWARF WHITE SOLID. French grown seed. New seed crop failed.

WINTER KING. One of the best keepers for winter. Oz., 30c; ¼ lb., \$1.00; lb., \$3.50, postpaid.

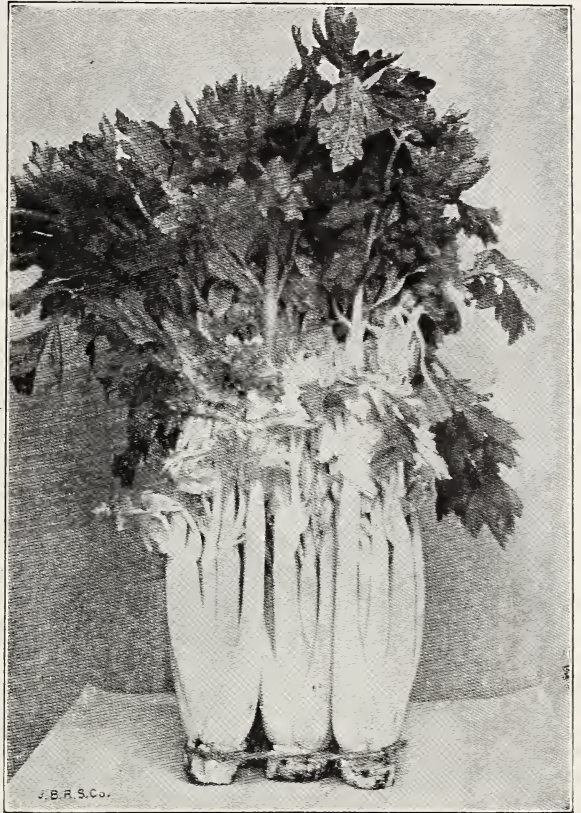
COLUMBIA. Very brittle and crisp, sweet and nutty. So tender it is hard to pack for shipping. Oz., 25c; ¼ lb., 80c; lb., \$3.00, postpaid.

NEWARK MARKET. Oz., \$1.50; ¼ lb., \$6.00; lb., \$20.00, postpaid.

PRIDE OF THE MARKET. (Ely's.) Oz., \$1.50; ¼ lb., \$6.00; lb., \$20.00, postpaid.

SOUP or CUTTING. The leaves are used for flavoring soups, etc. Oz., 20c; ¼ lb., 60c; lb., \$2.00, postpaid.

CELESTIAL or TURNIP-ROOTED CELERY. Oz. 20c; ¼ lb., 60c; lb., \$2.00, postpaid.



Easy Bleaching Celery.

ing. Later varieties should be planted from the 15th of May to the 15th of June. Plant in hills three to four feet apart, and it will be ready for use in from ten to twelve weeks from date of planting.

PINK COB CORY. (See specialties.) Qt., 30c; peck, \$2.00; bushel \$7.50, not postpaid.

EARLY WHITE COB CORY. The earliest white cob sweet corn. Qt., 25c; peck., \$1.75; bushel, \$6.00, not postpaid.

GOLDEN BANTAM. Quart, 25c; peck, \$1.75; bu., \$6.00, not postpaid.

EARLY CROSBY. Popular second early Sweet Corn. Ears larger than the extra early varieties, and better quality. Qt., 25c; peck, \$2.00; bushel \$7.50, not postpaid.

BLACK MEXICAN. Very early. There is no sweeter corn; stays tender longer than Golden Bantam. Corn has light amber tinge when ready to use. Kernels turn bluish black when ripe. Qt., 25c; pk., \$1.75; bushel, \$7.50, not postpaid.

COUNTRY GENTLEMAN. Qt., 30c; peck, \$2.25; bushel, \$8.00, not postpaid.

EARLY EVERGREEN. Ears large; earlier than Stowell's Evergreen. Qt., 20c; peck, \$1.50; bu., \$5.00, not postpaid.

BANTAM EVERGREEN. (See Specialties.) Qt., 30c; peck, \$2.25; bushel, \$8.00, not postpaid.

STOWELL'S EVERGREEN. Qt., 25c; peck, \$1.50; bushel, \$5.00, not postpaid.

POP CORN. White Rice. 10c per lb., not postpaid.

Sweet Corn

CULTURAL DIRECTIONS. One pint for 100 hills; about six quarts per acre. Early corn is planted in rows 2½ to 3 feet apart, and about 8 inches apart in the row, in May, and will be ready for the table eight or nine weeks from date of plant-



Golden Bantam Sweet Corn.



Black Beauty Egg Plant.

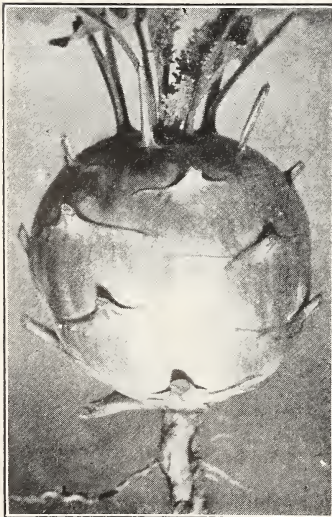
Kale or Borecole

CULTURAL DIRECTIONS. One ounce to 150 feet of drill. Sow from August 15th to October in rows, eighteen inches apart, and they will yield greens during fall and winter. They are improved by freezing.

DWARF GREEN CURLED. Postpaid, oz., 10c; $\frac{1}{4}$ lb., 30c; 1 lb., \$1.00.

TALL GREEN CURLED. Postpaid, oz., 10c; $\frac{1}{4}$ lb., 30c; 1 lb., \$1.00.

Kohl Rabi



White Vienna Kohl Rabi.

CULTURAL DIRECTIONS. One ounce to 200 feet of drill. Seed should be sown in light rich soil, very early in the spring for early crop, in rows eighteen inches apart and thin to six inches apart in the row. Plantings should be made the latter part of July for fall use. Should be used when young and tender.

EARLY WHITE VIENNA. Very early, small tops, can be planted close together; best for forcing, or field culture. Postpaid, oz., 20c; $\frac{1}{4}$ lb., 60c; 1 lb., \$2.00.

Egg Plant

CULTURAL DIRECTIONS. One ounce to 1000 plants. Seed germinates very slowly and requires warm ground. Start in hot beds in March. Transplant about June 1st in rows about three feet apart and two feet apart in the row.

BLACK BEAUTY. Early and productive. Fruit large and of a rich glossy black color. Postpaid, oz., 40c; $\frac{1}{4}$ lb., \$1.25; 1 lb., \$4.50.

NEW YORK PURPLE. Postpaid, oz., 40c; $\frac{1}{4}$ lb., \$1.25; 1 lb., \$4.50.

Endive

CULTURAL DIRECTIONS. One ounce to 150 feet of drill. Sow in rows about fifteen inches apart and thin to one foot apart in the row. Sow seed for fall crop in June or July. When nearly full grown tie outer leaves together bringing them up over the head for blanching.

BROAD LEAVED BATAVIAN. Postpaid, oz., 10c; $\frac{1}{4}$ lb., 25c; 1 lb., 80c.

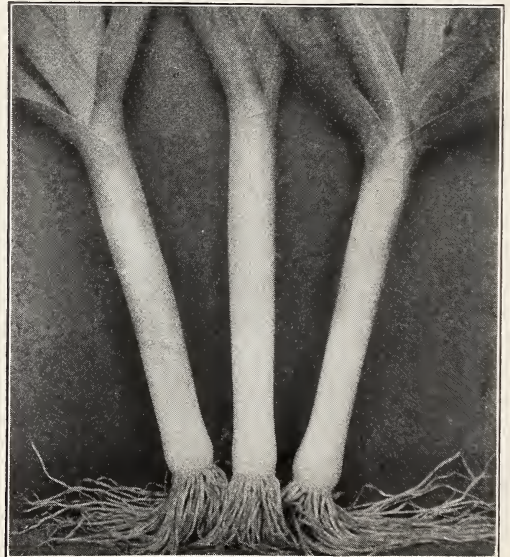
MOSS CURLED. Postpaid, oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 80c.

LARGE GREEN CURLED. Postpaid, oz., 10c; $\frac{1}{4}$ lb., 25c; 1 lb., 80c.

Leek

CULTURAL DIRECTIONS. One ounce to 100 feet of drill. Two or three pounds per acre. Sow in May in rows fifteen to eighteen inches apart and thin to six or eight inches apart, generally sown in trenches and covered with half an inch of soil, or they may be sown in seed beds and transplanted. When grown for the market they are left in the field all winter and pulled early in the spring.

AMERICAN FLAG. Stem about ten inches long by two inches thick. A strong vigorous plant with mild flavor. One of the best sorts for the market garden. Postpaid, oz., 20c; $\frac{1}{4}$ lb., 60c; 1 lb., \$2.00.



American Flag Leek.

Lettuce

CULTURAL DIRECTIONS. One ounce to 150 feet of drill. Lettuce requires rich soil to grow best quality. Mix **Pulverized Hen Manure** well with the soil and sow seed very early in the spring. For leaf lettuce, sow in rows twelve inches apart and do not thin until plants are big enough to use. Head lettuce should be sown in rows twelve inches apart and thinned to eight inches apart in the row.

EARLY CURLED SIMPSON. An early loose leaf variety. One of the best sorts for the home garden. Postpaid, oz., 10c; $\frac{1}{4}$ lb., 30c; 1 lb., \$1.00.

BLACK-SEEDED SIMPSON. One of the best loose leaf varieties for the home garden or for the market garden, for out-door sowing. Can be grown all through the season. Very tender. Postpaid, oz., 10c; $\frac{1}{4}$ lb., 30c; lb., \$1.00.

GRAND RAPIDS FORCING. An exceptionally good strain of the old type of this forcing variety. Postpaid, oz., 15c; $\frac{1}{4}$ lb., 40c; 1 lb., \$1.50.



Simpson Black-Seeded Lettuce.

GRAND RAPIDS FORCING (Special). The Growers' or Washington strain. (See Specialties.) Oz., 30c; $\frac{1}{4}$ lb., \$1.00; lb., \$3.00, postpaid.

HANSON. Forms large flat head, very slow to run to seed, outer leaves are bright green, inner leaves white, quality good. Postpaid, oz., 10c; $\frac{1}{4}$ lb., 30c; 1 lb., \$1.00.

SALAMANDER. A large firm head, leaves light green, broad, thick, somewhat crumpled, closely overlapping so that they blanch to a creamy white. Withstands heat well, and should be planted so as to head in hot weather. Postpaid, oz., 15c; $\frac{1}{4}$ lb., 35c; 1 lb., \$1.25.

CALIFORNIA CREAM BUTTER or ROYAL SUMMER CABBAGE. A popular variety for autumn and winter use. Forms a large head, which is very buttery, and of a rich, golden yellow inside. Oz., 10c; $\frac{1}{4}$ lb., 30c; lb., \$1.00, postpaid.



Big Boston Head Lettuce.

Head Lettuce

BIG BOSTON. (See Specialties.) Oz., 15c; $\frac{1}{4}$ lb., 50c; lb., \$1.75, postpaid.

ICEBERG. A large crisp Lettuce, very tender, stands hot weather better than most varieties, but has not been grown successfully on our muck. Oz., 15c; $\frac{1}{4}$ lb., 40c; lb., \$1.50, postpaid.

MAY KING. Oz., 10c; $\frac{1}{4}$ lb., 30c; lb., \$1.00, postpaid.

PRIZEHEAD. Oz., 10c; $\frac{1}{4}$ lb., 30c; lb., \$1.00, postpaid.

ALL SEASONS. (See Specialties.) Oz., 15c; $\frac{1}{4}$ lb., 40c; lb., \$1.50, postpaid.

NEW YORK or WONDERFUL. (See Specialties.) Oz., 25c; $\frac{1}{4}$ lb., 80c; lb., \$3.00, postpaid.

UNRIVALLED. (See Specialties.) Oz., 25c; $\frac{1}{4}$ lb., 80c; lb., \$3.00, postpaid.



Head Lettuce, May King.



Extra Early Usage Muskmelon.

Watermelon

CULTURAL DIRECTIONS. One ounce to 30 hills, about three pounds per acre. Watermelons want rich, sandy soil. Cultural directions the same as for Muskmelons, except the hills should be eight feet apart.

COLE'S EARLY. One of the earliest melons; small, seldom more than twelve inches long. Flesh red and sweet; rind thin and brittle. Not a good shipper, but good for home garden and early market. Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 75c, postpaid.

HALBERT HONEY. Very similar to Kleckley's Sweet, but is blunt at both ends. For home market and garden it has no rival, but it is not a good shipper. Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 75c, postpaid.

TOM WATSON. Produces melons 18 to 24 inches long by 10 to 12 inches in diameter, weighing 40 to 50 pounds, on rich soil. Flesh deep red and very crisp; melting and of exquisite flavor. Good shipper. Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 75c, postpaid.

TRIUMPH. One of the largest melons. Dark green, red flesh; good shipper. Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 75c, postpaid.

PEERLESS. An old standard, and one of the best general crop melons for the home market. Medium early, fruit oblong, large size; rind light green, mottled and veined; flesh scarlet, solid to center; sweet, melting and delicious. Not a good shipper. Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 75c, postpaid.

SWEETHEART. Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 75c, postpaid.

CITRON. For preserving. Red seed. Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 60c, postpaid.

Muskmelon

CULTURAL DIRECTIONS. One ounce will plant 50 hills, one pound an acre. Melons do best in rich, sandy soil. Mix Pulverized Hen Manure well with the soil for each hill. Hills should be from four to six feet apart. Plant ten to twelve seeds to the hill. Cover seeds with an inch of soil. When plants are up, dust well with Slug Shot, to protect from the striped beetles. When danger from frost and insects is past, thin to four good plants to the hill.

HOODOO. Vine vigorous, quite blight-resistant and very prolific. Flesh orange in color. Fruit medium size; quality sweet and delicious. Oz., 10c; $\frac{1}{4}$ lb., 30c; lb., \$1.00, postpaid.

ROCKY FORD. Oz., 10c; $\frac{1}{4}$ lb., 30c; lb., \$1.00, postpaid.

HEARTS OF GOLD. (See Specialties.) Oz., 60c; $\frac{1}{4}$ lb., \$1.75; lb., \$5.25, postpaid.

EDWARDS' PERFECTO. (See Specialties.) Oz., 15c; $\frac{1}{4}$ lb., 40c; lb., \$1.50, postpaid.

THE BENDER. (See Specialties.)

EXTRA EARLY OSAGE. (See Specialties.) Oz., 15c; $\frac{1}{4}$ lb., 40c; lb., \$1.50, postpaid.

OSAGE. Oz., 10c; $\frac{1}{4}$ lb., 30c; lb., \$1.00, postpaid.

KLECKLEY'S SWEET or MONTE CRISTO. One of the sweetest melons on the market. Melons long, averaging eighteen to twenty inches. Rind very thin, dark green in color. Not a good shipper, but all right for early market and home gardens. Fruit tapers slightly toward the stem end. Big crisp, solid crimson heart. Medium early. Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 75c, postpaid.



J. B. R. S. Co.

Cole's Early Watermelon.

Onions

CULTURAL DIRECTIONS. One ounce to 100 feet of drill; about four pounds to the acre. Onions for the market are generally grown on muck land in Michigan, but may be grown for home use on any rich, loamy soil. They appreciate plenty of fertilizer on muck; the market growers apply heavily about a 10-10 fertilizer. Drill in rows about a foot apart. As soon as the weeds appear, weed carefully and give shallow cultivation. Sow as early as possible in spring.

RED WETHERSFIELD. Oz., 15c, ¼ lb., 40c; lb., \$1.50, postpaid.

SOUTHPORT YELLOW GLOBE. Bulbs nearly round, but slightly longer than Yellow Globe Danvers. Not quite so early, but much heavier yielder and not flat across the bottom. Color beautiful golden; the best main crop sort. Oz., 20c; ¼ lb., 50c; lb., \$1.80, postpaid.



Southport Red Globe Onions.

SOUTHPORT RED GLOBE. Shape same as Southport Yellow, but color very dark red. Better keeper than the Yellow, but not so good a seller. Oz., 20c; ¼ lb., 50c; lb., \$1.80, postpaid.

SOUTHPORT WHITE GLOBE. Oz., 20c; ¼ lb., 75c; lb., \$2.50, postpaid.

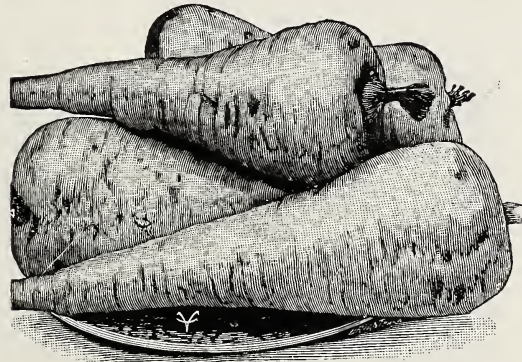
YELLOW GLOBE DANVERS. Oz., 15c; ¼ lb., 50c; lb., \$1.80, postpaid.

OHIO YELLOW GLOBE. Oz., 20c; ¼ lb., 60c; lb., \$2.00, postpaid.

PRIZETAKER or MAMMOTH YELLOW SPANISH. Very large, nearly round, light straw color, very mild and sweet. Late. Oz., 20c; ¼ lb., 60c; lb., \$2.00, postpaid.

MICHIGAN YELLOW GLOBE. Earlier than Southport, but more flat across the bottom. Oz., 20c; ¼ lb., 50c; lb., \$1.80, postpaid.

WHITE PORTUGAL or SILVERSKIN. An early, flat, white onion of mild flavor. Used mostly to grow sets. Oz., 20c; ¼ lb., 60c; lb., \$2.25, postpaid.



Hollow Crown Parsnips.

Parsnips

CULTURAL DIRECTIONS. One ounce will sow 100 feet of drill; three to four pounds per acre. Sow in April or May. Parsnips require a long season to mature. Sow thickly and thin as for Carrots, as seed does not germinate well unless conditions are just right.

HOLLOW CROWN. Oz., 10c; ¼ lb., 30c; lb., \$1.00, postpaid.

LONG SMOOTH DUTCH or SUGAR. Roots very long, slim and much sweeter than the Hollow Crown. Oz., 15c; ¼ lb., 40c; lb., \$1.50, postpaid.

Parsley

CULTURAL DIRECTIONS. One ounce to 150 feet of drill. Seed germinates very slowly. Sow thickly in rows about 15 inches apart, and thin to four or five inches apart in the row. Parsley will live through the winter without protection, and if plants are left, there will be plenty for early spring use, but will soon go to seed. Will last longer the second year if sown in the fall.

CHAMPION MOSS CURLED. Leaves have the appearance of finely curled moss; plant hardy and very slow to run to seed. Oz., 10c; ¼ lb., 20c; lb., 60c, postpaid.

TRIPLE CURLED. Plant just as handsome, beautifully curled and more rapid grower. Will produce a larger crop. Oz., 10c; ¼ lb., 20c; lb., 60c, postpaid.

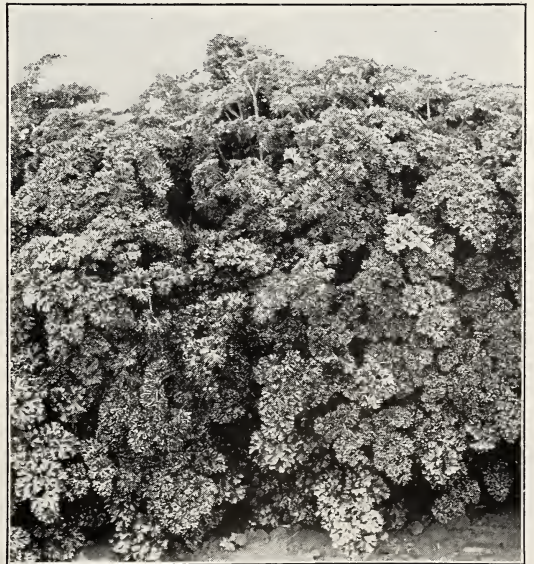
Onion Sets

WHITE SILVERSKIN SETS. Write for prices.

YELLOW BOTTOM SETS. Write for prices.

RED BOTTOM SETS. Write for prices.

EGYPTIAN or PERENNIAL TOP SETS. Quart, 15c; bushel \$2.50, not postpaid.



Champion Moss Curled Parsley.



Thomas Laxton Peas.

AMERICAN WONDER. One of the earliest and sweetest wrinkled peas. Vines very dwarf and productive. Pods small, but well filled. The most delicious pea for the home garden. Quart, 40c; peck, \$2.50; bushel, \$9.00, not postpaid.

LITTLE GEM. A second early hardy variety. Prolific, bearing pods on both sides of the stalk, beginning near the ground. Pods medium length, round; and well filled to the end. Height of vine about fifteen inches. Seed green, wrinkled. Quart, 40c; peck, \$2.50; bushel, \$9.00, not postpaid.

LITTLE MARVEL. One of the most prolific of the second early sorts. Pods long, three to four inches, well filled with deliciously sweet peas. Vines about 15 inches in height. Quart, 40c; peck, \$2.50; bushel, \$9.00, not postpaid.

ALDERMAN. A little later than the Telephone. Vines about four feet in height; very heavy foliage. One of the most productive sorts. Pods long, dark green, well filled; seed wrinkled. Quart, 40c; peck, \$2.50; bushel, \$9.00, not postpaid.

TELEPHONE. Main crop variety. Pods of the old Telephone were light green but careful selection and breeding have changed them to a dark green, and there is but little difference between our Telephone and the Alderman. Quart, 40c; peck, \$2.50; bushel, \$9.00, not postpaid.

BLISS' EVERBEARING. Height of vine about 30 inches. Pod broad and borne at top of vine. Peas large and of fine eating quality. Quart, 30c; peck, \$2.25; bushel, \$8.40, not postpaid.

CHAMPION OF ENGLAND. Vines four to five feet in height, productive. Pods two to three inches long, broad and well filled. Peas medium size, of unsurpassed sweetness. Quart, 30c; peck, \$2.25; bushel, \$8.40, not postpaid.

DWARF GRAY SUGAR. A dwarf edible pod variety. Vines about two feet high. Cook pods like string beans. Quart, 40c; peck, \$2.50; bushel, \$9.00, not postpaid.

Peas

CULTURAL DIRECTIONS. One quart will plant 100 feet of drill; about one bushel per acre. Peas do best on rich, sandy loam that has been well manured the previous season. Plant smooth, early sorts as soon as the ground can be worked in the spring. The wrinkled varieties are liable to rot if the soil is cold and wet, and should be planted later.

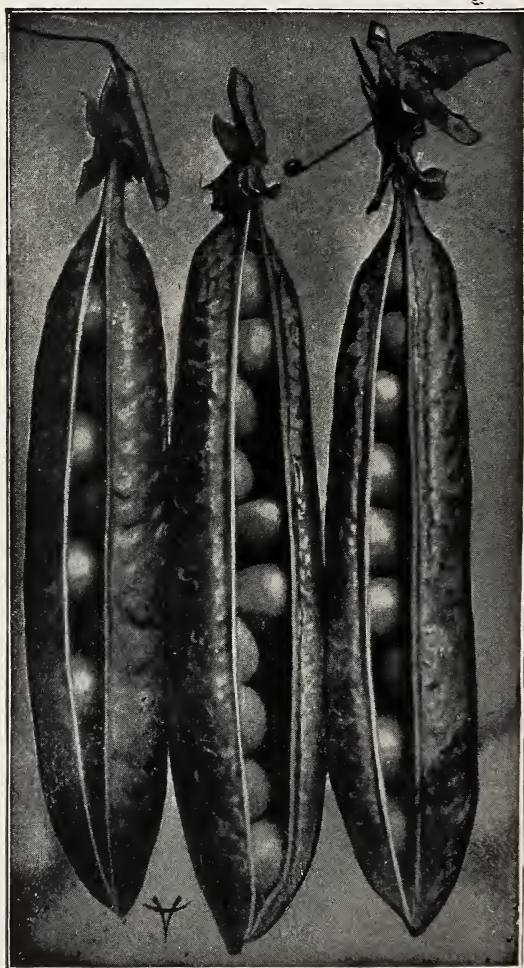
ALASKA. A small, smooth blue pea, and one of the earliest. Grown largely by canners and market gardeners for early crop. Vines about two feet in height, pods small, but well filled. Can nearly all be harvested at one picking. Quart, 30c; peck, \$2.00; bushel, \$7.50, not postpaid.

DARK PODDED SUTTON'S EXCELSIOR. (See Specialties.) Quart, 40c; peck, \$2.50; bushel, \$9.00, not postpaid.

IMPROVED LAXTONIAN. (See Specialties.) Quart, 40c; peck, \$2.50; bushel, \$9.00, not postpaid.

DWARF TELEPHONE. (See Specialties.) Quart, 40c; peck, \$2.50; bushel, \$9.00, not prepaid.

THOMAS LAXTON. One of the best second early sorts for the market gardeners. Vines of same height as the Gradus, but a little earlier, more hardy and productive. Pods long, blunt ended and well filled with large peas. Peas wrinkled. Quart, 40c; peck, \$2.50; bushel, \$9.00, not postpaid.



Telephone Peas.

Peppers

CULTURAL DIRECTIONS. One ounce will produce about 2,000 plants; about 7,000 plants for an acre. Sow seed in hotbeds from February to April; transplant to open ground when all danger from frost is past, in rows about three feet apart and eighteen inches apart in the row. Seed can be sown in the open ground late in May, and thinned as above. Cover seed about half an inch.

CHINESE GIANT. Mammoth fruits, twelve to fifteen inches in circumference. Flesh thick, tender, mild and sweet. Oz., 40c; ¼ lb., \$1.50; lb., \$5.00, postpaid.

BULL NOSE or LARGE BELL. Large bell-shaped, thick-fleshed fruit. Good for Mango Pickles. Oz., 40c; ¼ lb., \$1.25; lb., \$4.00, postpaid.

RUBY KING. Large, four to six inches long; mild and sweet. Oz., 40c; ¼ lb., \$1.25; lb., \$4.00, postpaid.

HARRIS' EARLIEST. (See Specialties.) Oz., 50c; ¼ lb., \$1.75; lb., \$6.00, postpaid.

WORLD BEATER. (See Specialties.) Oz., 50c; ¼ lb., \$1.75; lb., \$6.00, postpaid.



Chinese Giant Pepper.

Pumpkins

CULTURAL DIRECTIONS. One ounce of seed for 20 hills. About 3 pounds per acre. Usually grown in corn fields, but can be grown as a separate crop. Seed should be planted in hills eight to ten feet apart each way, after soil gets warm. Cultivate often until vines begin to run. Cut pumpkins after leaves die, leaving three to four inches of stem attached to fruit. Store in a dry place, and do not bruise.

SUGAR PIE. Fruit small, round, flattened at the ends, and slightly ribbed. Skin and flesh deep orange-yellow. Flesh very thick and of high quality. Oz., 10c; ¼ lb., 20c; lb., 75c, postpaid.

LARGE CHEESE or KENTUCKY FIELD. Large, round, flattened fruits, ribbed and creamy. Buff in color. Flesh yellow, deep and of fine quality. Oz., 10c; ¼ lb., 20c; lb., 75c, postpaid.

CONNECTICUT FIELD. Generally used for planting in corn for stock feeding.



Sweet or Sugar Pie Pumpkin.

ing; also makes good pies. Oz., 10c; ¼ lb., 20c; lb., 75c, postpaid.

KING OF THE MAMMOTHS. The giant among pumpkins. Often grows two feet or more in diameter. Oz., 10c; ¼ lb., 20c; lb., \$1.00, postpaid.

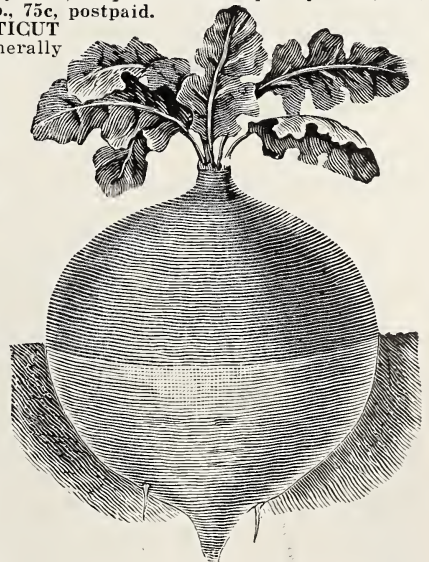
Rutabagas

CULTURAL DIRECTIONS. One ounce to 100 feet of drill; one pound to the acre, if sown in drill rows. Spring sowing should be done very early, so that the 'bagas may get their growth before hot weather, or they will be pithy and bitter. For main crop sow in July or August.

AMERICAN PURPLE TOP. A hardy productive variety, with small neck. Roots are large, globe-shaped, with small tap-root. Color bright yellow with purple top. Flesh solid, tender and sweet. Oz., 10c; ¼ lb., 20c; lb., 60c, postpaid.

WHITE SWEET RUSSIAN. Roots globe shape, color white, with green shade at the neck. Sweet and tender. Oz., 10c; ¼ lb., 20c; lb., 75c, postpaid.

LONG ISLAND IMPROVED. Grows very large. Purple top, yellow below; flesh yellow. Excellent 'bagas for either table use or stock feeding. Oz., 10c; ¼ lb., 20c; lb., 75c, postpaid.



American Purple Top Rutabaga.



J. B. R. S. Co.

Vick's Scarlet Globe Radishes.

COOPER'S SPARKLER. White tip, quite similar to Scarlet Turnip White Tip as to size and time of maturity, only the Sparkler is more round or ball-shaped, and the white extends farther up the radish, making a more attractive bulb. Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 60c, postpaid.

FRENCH BREAKFAST. Of oblong shape, small, quick growing, color rose scarlet, with small white tip. — Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 60c, postpaid.

SCARLET TURNIP, WHITE TIPPED. Round; deep scarlet, shading to a white tip at the bottom. Very early. Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 60c, postpaid.

CRIMSON GIANT. A large round, red, early radish of the Scarlet Globe type. Not quite so early, and has too large leaves to be a good forcing radish, but fine for outdoor growing, and will grow large without getting pithy. Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 60c, postpaid.

ICICLE. One of the earliest long varieties, white throughout. Very crisp and tender. Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 60c, postpaid.

LONG SCARLET SHORT TOP. Roots are smooth and tender, with very short tops. Color bright carmine red. Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 60c, postpaid.

HALF LONG DEEP SCARLET. A half long, of a beautiful deep scarlet color. Does not become pithy as soon as long scarlet varieties. Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 60c, postpaid.

LONG BLACK SPANISH. One of the latest and hardiest varieties for winter use; roots eight to nine inches long, two to three inches in diameter, and nearly black in color. Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 60c, postpaid.

ROUND BLACK SPANISH. Round, three to four inches in diameter. Skin almost black; flesh white, crisp and pungent. Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 60c, postpaid.

CHINESE ROSE. Roots four or five inches long, blunt at both ends, about two inches thick. Skin smooth, and bright deep rose color. Flesh white and crisp. One of the best winter sorts. Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 60c, postpaid.

Radish

CULTURAL DIRECTIONS. One ounce to 100 feet of drill; about five pounds to the acre. Sow in rows about 12 inches apart in rich, sandy loam. Use no fresh manure, as the radishes will not grow smooth and will be wormy. Later sowings can be made at intervals during the summer. Seeds of winter radishes should be sown in July or August, and radishes can be kept during the winter if covered with sand and kept in a cool cellar.

GRAND RAPIDS FORCING. (See Specialties.) Oz., 10c; $\frac{1}{4}$ lb., 30c; lb., \$1.00, postpaid.

VICK'S SCARLET GLOBE. We have an exceptionally fine stock of this grand variety, which has been tested by having crops grown both in greenhouses and out-doors. Our new stock will not be sold until it is tested. It is one of the earliest of the forcing radishes, and does equally as well for out-door culture. Roots are globe-shape, of fair size, not apt to be pithy, small tops, crisp and tender. Color a bright scarlet. Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 75c, postpaid.



Icicle Radishes.

Rhubarb

CULTURAL DIRECTIONS. One ounce will produce 100 plants. The seed should be sown in the spring in rows about eighteen inches apart and transplanted the next spring to permanent beds. Roots should be planted three or four feet apart, and well manured, either with well-rotted stable manure or Pulverized Hen Manure. Give thorough cultivation.

VICTORIA. One of the best market sorts; stalks a beautiful red. Oz., 15c; $\frac{1}{4}$ lb., 40c; lb., \$1.50, postpaid.

Spinach

CULTURAL DIRECTIONS. One ounce to 100 feet of drill; eight to ten pounds per acre. Sow thinly in drills, twelve to fifteen inches apart and about half an inch deep. Thin plants to four inches apart in the row. Sow early for spring crop, in August for fall use; and if sown from the middle to last of September, and protected during the winter with a light covering of straw, it will be ready for use very early in the spring. Apply liberal top dressing of Pulverized Hen Manure.

KING OF DENMARK. (See Specialties.) Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 60c, postpaid.

ROUND SUMMER THICK LEAVED. An old standard. Grand Rapids Growers use this variety very largely for main crop for spring, summer and fall. Oz., 10c; $\frac{1}{4}$ lb., 15c; lb., 35c, postpaid.

LONG STANDING. Oz., 10c; $\frac{1}{4}$ lb., 15c; lb., 35c, postpaid.

LONG SEASON. Quite similar to Victoria. Plant makes a flat rosette, with very dark green, broad and pointed leaves. One of the best long-standing sorts. Oz., 10c; $\frac{1}{4}$ lb., 15c; lb., 35c, postpaid.



Victoria Spinach.

EARLY YELLOW BUSH SCALLOP. Identical with White Bush, except in color, which is yellow. Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 75c, postpaid.

GIANT SUMMER CROOKNECK. Largest and one of the earliest summer varieties. Fruit large, very warty; color deep orange. Oz., 10c; $\frac{1}{4}$ lb., 30c; lb., \$1.00, postpaid.

BOSTON MARROW. In shape and size, similar to the Hubbard. Shell bright orange; flesh yellow. Good for canning or pies. Oz., 10c; $\frac{1}{4}$ lb., 30c; lb., \$1.00, postpaid.

GOLDEN HUBBARD. Earlier than the Hubbard, but quite like it in form and habit, but smaller. Shell warted, hard, strong and of a rich orange red color. Flesh deep orange; dry and an excellent keeper. Oz., 10c; $\frac{1}{4}$ lb., 30c; lb., \$1.00, postpaid.

HUBBARD. The standard winter Squash. Shell moderately warted; deep dark bronze green; flesh bright yellow, fine-grained, thick and dry. Oz., 10c; $\frac{1}{4}$ lb., 30c; lb., \$1.00, postpaid.

CHICAGO WARTED HUBBARD. Similar in quality and form to the Hubbard, but fruit larger and a little later. Oz., 10c; $\frac{1}{4}$ lb., 40c; lb., \$1.25, postpaid.



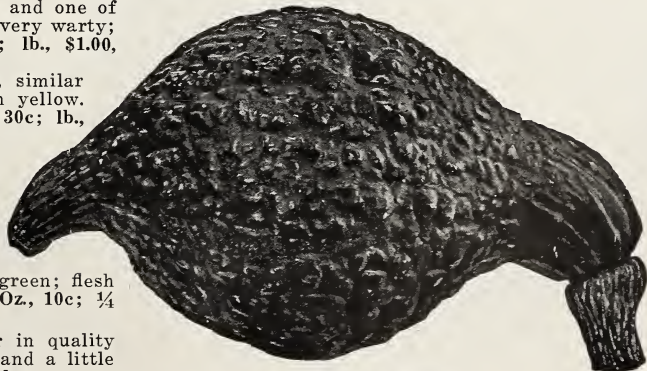
Victoria Rhubarb.

VICTORIA. Makes a flat rosette with very short stems. The leaves are large, thick and wrinkled, blunt or rounded, and dark green in color. Stands hot weather well; slow to go to seed. Oz., 10c; $\frac{1}{4}$ lb., 15c; lb., 40c, postpaid.

Squash

CULTURAL DIRECTIONS. For summer squash, one ounce to 25 hills; two to three pounds per acre. For winter squash, one ounce to ten hills; about three pounds per acre. After danger of frost is past plant eight to ten seeds to the hill for summer sorts, about four feet apart, the last of May, and winter varieties in hills about eight feet apart, from the middle of June to July first. Mix a liberal supply of Pulverized Hen Manure with the soil in each hill. Do not bruise or break the stems of winter squash when gathering. Store in a cool, dry place.

EARLY WHITE BUSH SCALLOP. Very early summer Squash, also known as Patty Pan. Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 75c, postpaid.



Hubbard Squash.



John Baer Tomatoes.

BONNY BEST. As early as Chalk's Jewel. Fruit smooth, solid and uniform. Produced in clusters in center of plant. One of the most productive; color bright red; good shipper. Oz., 25c; $\frac{1}{4}$ lb., 80c; lb., \$3.00, postpaid.

WAYAHEAD. (See Specialties.) Oz., 60c; $\frac{1}{4}$ lb., \$2.00; lb., \$7.50, postpaid.

RED HEAD. (See Specialties.) Oz., 40c; $\frac{1}{4}$ lb., \$1.50; lb., \$5.00, postpaid.

THE BURBANK. (See Specialties.) Oz., 25c; $\frac{1}{4}$ lb., 90c; lb., \$3.50, postpaid.

THE LANDRETH. (See Specialties.) Oz., 25c; $\frac{1}{4}$ lb., 90c; lb., \$3.50, postpaid.

RED ROCK. A very fine selection of the Matchless type, medium size, round, smooth, and a bright red. Fine for canning. Oz., 20c; $\frac{1}{4}$ lb., 70c; lb., \$2.50, postpaid.



Bonny Best Tomatoes.

EARLIANA. Oz., 25c; $\frac{1}{4}$ lb., 90c; lb., \$3.50, postpaid.

CHALK'S EARLY JEWEL. An exceptionally fine early variety. About ten days later than the Earliana. Fruit round, smooth and solid. Color crimson. Extremely productive. Oz., 20c; $\frac{1}{4}$ lb., 70c; lb., \$2.50, postpaid.

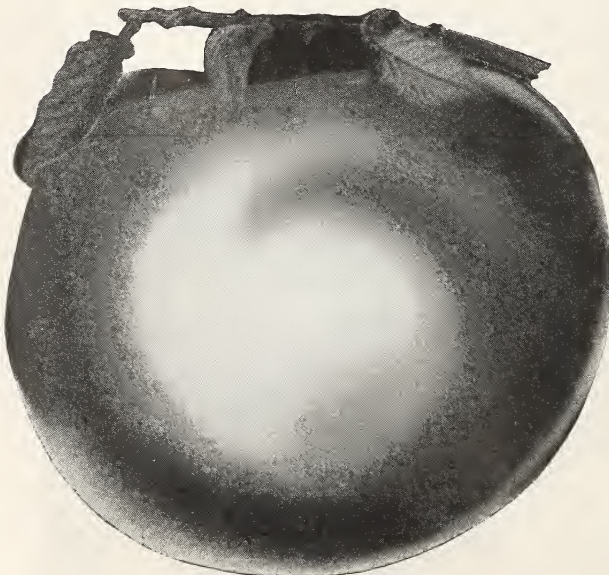
Salsify or Vegetable Oysters

CULTURAL DIRECTIONS. One ounce to 75 feet of drill; five or six pounds to the acre. Sow the seed early in the spring in drills twelve inches apart and one inch deep. Thin to four or five inches apart. The roots will be ready for use in October, when a supply should be taken up and stored like carrots for winter use. Like parsnips, they may be left in the ground all winter and dug as soon as the ground is thawed.

MAMMOTH SANDWICH ISLAND. Roots large and uniform; pure white. Oz., 20c; $\frac{1}{4}$ lb., 60c; lb., \$2.00, postpaid.

Tobacco

CONNECTICUT SEED LEAF. A hardy cigar variety for home use. Oz., 40c; $\frac{1}{4}$ lb., \$1.25; lb., \$4.00, postpaid.



Ponderosa Tomato.

Turnip

CULTURAL DIRECTIONS. One ounce to 150 feet of drill; one pound per acre. For main crop, sow in July or August. Sow either broadcast or in drills.

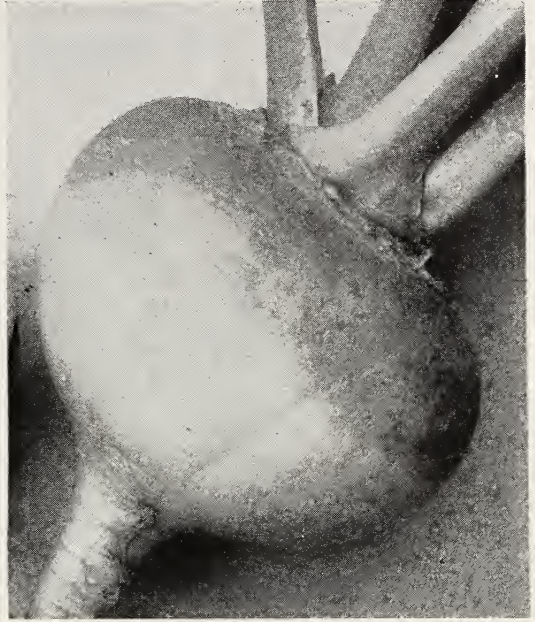
EXTRA EARLY WHITE MILAN. The earliest bulbs, small, clear white, and flat. One of the best for early bunching. Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 75c, postpaid.

WHITE EGG. An early egg-shaped variety. Roots smooth, clear white. One of the best for market. Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 60c, postpaid.

PURPLE TOP WHITE GLOBE. Not so early as White Egg; perfect globe in shape. Flesh and skin white, colored purple or red above ground. Very fine grained and sweet. The most attractive turnip and best seller. Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 60c, postpaid.

PURPLE TOP STRAP LEAVED. A very early flat variety, medium size; purple or red above ground and white below. Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 60c, postpaid.

COW HORN. Roots long, slightly crooked; clear white. Often sown to plow under for fertilizer. Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 60c, postpaid.



Purple Top Strap-Leaved Turnip.



Purple Top White Globe Turnip.

ROBERTSON'S GOLDEN BALL. Tops small, roots medium size, round, smooth and deep yellow. Fine grained, flesh firm, crisp and sweet. Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 60c, postpaid.

YELLOW GLOBE. Oz., 10c; $\frac{1}{4}$ lb., 15c; lb., 50c, postpaid.

YELLOW ABERDEEN. Oz., 10c; $\frac{1}{4}$ lb., 15c; lb., 50c, postpaid.

Herbs

For early use, sow seed in hotbed or in open ground in May, in rows one foot apart. Cover very lightly and thin to six inches apart in the row. They should be cut on a dry day, just before they come into full blossom. Tie in bunches and keep where they will dry quickly.

ANISE. Used for flavoring. Oz., 15c, postpaid.

CARAWAY. Seeds used for flavoring. Oz., 15c, postpaid.

SAGE. Very aromatic. Oz., 40c, postpaid.

SUMMER SAVORY. Leaves for flavoring soups. Oz., 20c, postpaid.

THYME. Used as seasoning. Oz., 40c, postpaid.

DILL. Used for flavoring pickles. Oz., 15c, postpaid.

LAVENDER. Leaves fragrant. Oz., 20c, postpaid.

SWEET MARJORAM. Used for seasoning. Oz., 20c, postpaid.



FLOWER SEEDS

Happy are they who can look back with loving thoughts to the beautiful Old-Fashioned Flower Gardens their mothers or grandmothers grew and loved.

- ASTERS.** Queen of the Market. Early, mixed. Pkt., 5c; oz., \$1.00.
Giant Comet. Mixed. Pkt., 5c; oz., \$1.00.
Crego. Mixed. Pkt., 5c; oz., \$1.50.
- CANDYTUFT.** Mixed. Pkt., 5c; oz., 50c.
- CALENDULA.** (Pot Marigold.) Pkt., 5c; oz., 40c.
- CALLIOPSIS.** Mixed. Pkt., 5c; oz., 40c.
- CARNATION.** Tall Marguerite. Mixed. Pkt., 5c; oz., \$2.00.
Dwarf Marguerite. Mixed. Pkt., 5c; oz., \$2.00.
- CANTERBURY BELL.** Single. Mixed. Pkt., 5c; oz., 50c.
Double, Mixed. Pkt., 5c; oz., \$1.50.
Cup and Saucer. Pkt., 5c; oz., \$2.00.
- CASTOR BEANS.** Zanzibarensis. Pkt., 5c; oz., 20c.
- COREOPSIS.** Perennial. Mixed. Pkt., 5c; oz., 60c.
- COSMOS.** Early Flowering. Mixed. Pkt., 5c; oz., 50c.
- COXCOMB.** Dwarf. Mixed. Pkt., 5c; oz., \$1.00.
Tall, Mixed. Pkt., 5c; oz., \$1.50.
- DAISY.** Bellis or Double Daisy. Mixed. Pkt., 5c; oz., \$3.00.
- DELPHINIUM OR LARKSPUR.** Giant Hyacinth. Annual; mixed. Pkt., 5c; oz., 75c.
Formosum. Perennial; mixed. Pkt., 5c; oz., \$3.00.
- DIANTHUS OR PINKS.** Chinese Double. Mixed. Pkt., 5c; oz., 75c.
- DIGITALIS OR FOXGLOVE.** Mixed. Pkt., 5c; oz., \$1.00.
- EVERLASTING FLOWERS.** Mixed. Pkt., 5c; oz., 75c.
- FORGET-ME-NOT.** Mixed. Pkt., 5c; oz., \$1.50.
- FOUR O'CLOCK.** Marvel of Peru. Mixed. Pkt., 5c; oz., 30c.
- GAILLARDIA.** Blanket Flower. Mixed. Pkt., 5c; oz., 75c.
- GOURDS.** Mixed. Pkt., 5c; oz., 25c.
- HOLLYHOCK.** Double, mixed. Pkt., 5c; oz., \$1.50.
- MARIGOLD.** Legion of Honor. Dwarf mixed. Pkt., 5c; oz., 75c.
Tall French. Mixed. Pkt., 5c; oz., 75c.
- MIGNONETTE.** Machet. Mixed. Pkt., 5c; oz., \$1.00.
- MORNING GLORY.** Common. Mixed. Pkt., 5c; oz., 20c.
Japanese. Mixed. Pkt., 5c; oz., 25c.
- NASTURTIUMS.** Dwarf. Mixed. Pkt., 5c; oz., 15c.
Tall. Mixed. Pkt., 5c; oz., 15c.
- PANSY.** Giant Mixture. Flowers very large, and great diversity of colors. This mixture contains all of the good ones. Pkt., 5c; oz., \$5.00.
Good Mixture. Not so many colors as the Giant Mixture, but flowers large, and good assortment of colors. Pkt., 5c; oz., \$1.50.
- PETUNIA.** Large Flowering. Mixed. Pkt., 5c.
- PHLOX DRUMMONDII.** Splendid mixture. Pkt., 5c; oz., \$2.00.
Decussata. (Perennial.) Pkt., 5c; oz., \$2.50.
- POPPY.** Carnation Flowered. Mixed. Pkt., 5c; oz., 25c.
Shirley. Pkt., 5c; oz., 40c.
- PORTULACA.** (Moss Rose.) Double, mixed. Pkt., 5c; oz., \$3.00.
- SALVIA SPLENDENS.** Mixed. Pkt., 5c; oz., \$2.00.
- SWEET ALYSSUM.** Pkt., 5c; oz., 50c, postpaid.
- SWEET PEAS.** Grandiflora Types. Mixed. Pkt., 5c; oz., 10c.
Spencer. Mixed. Pkt., 5c; oz., 20c.
- SWEET WILLIAM.** Special mixture. Pkt., 5c; oz., \$1.50.
- VERBENA.** Mammoth Mixed. Pkt., 5c; oz., \$1.50.
- ZINNIA.** Mammoth, mixed. Pkt., 5c; oz., \$1.00.



Sweet Peas.



Kentucky Blue Grass.

Grass Seeds

Our endeavor is to handle only the very best and purest Grass Seeds. We supply only the best and highest germinating seeds, and our prices are based on supplying this quality.

PRICES.

White Clover (White Dutch) per lb.	\$0.75
Kentucky Blue Grass, per lb. ....	.60
Red Top, Fancy, per lb. ....	.30

PRICES.

Red Top, Unhulled, per lb. ....	.25
English Rye Grass, per lb. ....	.30

ORCHARD GRASS. Valuable for pasture. Will last longer on light soil than any other known grass. Makes good hay if cut before it becomes woody. Sow from a half bushel to two bushels per acre. Write for price.

KENTUCKY BLUE GRASS. (June Grass.) One of the best grasses for permanent pasture. As it takes some time to become established, it is better to sow in mixtures. It is a perennial and prefers lime soil. Sow about 50 pounds per acre. Write for price.

RED TOP. Valuable for hay or pasture on low, wet land. Sow hulled seed about 8 to 10 pounds per acre. Fancy, recleaned or solid seed, about 3 or 4 pounds per acre. Write for price.

CANADIAN BLUE GRASS. Perennial; 6 to 12 inches. Succeeds on soil too poor for Kentucky, and for a Michigan pasture grass we prefer it to Kentucky Blue Grass, as it is better adapted to Michigan weather conditions. It is well relished by stock of all kinds, and is especially good for milch cows. Sow it alone, about 40 pounds per acre. Write for prices.



Field and Grass Seeds

We are distributors of Field and Grass Seeds for the Michigan State Farm Bureau in Western Michigan. While we retail the seeds at Farm Bureau prices, we also furnish seed to the local Co-operative Associations at the weekly Farm Bureau quotation prices, and it would be advisable for all members of the Farm Bureau to place their orders early with their local Associations, while there is plenty of Michigan grown No. 1 seed on hand.



Alfalfa.

COSSACK ALFALFA. A very hardy variety, similar to Grimm. Probably the only advantage it has over Grimm is that it is more easily identified, as the blossoms on the Cossack are more variegated; many yellow and white blossoms, which Grimm seldom shows. While the experiments on Cossack have not been so extensive to date, it seems to be a toss-up as to which is the most valuable. Farm Bureau seed. Write for prices.

ALFALFA (Common). Grown in Idaho from inspected fields; scarified and tested. Dodder free, and contains no fowl weed seeds. As Idaho borders on the British line, this Alfalfa is hardy for Michigan. Write for prices.

ALFALFA (Common). Grown in Michigan from inspected fields; scarified and tested for germination. Cleaned thoroughly and is free from fowl seeds. The growing of Alfalfa seed in Michigan is becoming more important every year, and in a few seasons Michigan will be celebrated as a producer of hardy Alfalfa Seed. Write for prices.

Alfalfa

The acreage seeded to Alfalfa in Michigan is about equal to that devoted to June or Medium Clover. Our sales of Alfalfa last season were fully fifty-fifty with the Medium. In five years more, we believe that the acreage of Alfalfa in this state will be greater than that of all other clovers combined, except perhaps Sweet Clover. Our Alfalfa seed is all furnished by the Michigan State Farm Bureau, and is all grown either in Michigan or the Northwest, and is adapted to our climate.

Every ton of Alfalfa hay removes from the soil eleven pounds of phosphoric acid, which cannot be replaced by plowing under cover crops or manure. And unless Acid Phosphate, ground phosphate rock, or bone meal is applied, the soil soon becomes unbalanced, and will not produce good yields of grain. Even if the entire crop of either Alfalfa or Sweet Clover is plowed under, it only puts back the amount of phosphoric acid it has taken from the soil. At least two hundred (200) pounds of 16 per cent Acid Phosphate per acre should be sown with the seed, and the same amount should be applied as a top dressing every year thereafter so long as the field remains in Alfalfa.

GRIMM ALFALFA was brought to the United States by a Mr. Grimm, who brought with him from the old country a few seeds of Alfalfa. He settled in Minnesota, and the seed was sown and produced exceptionally hardy plants, and when it was eventually recognized as a superior strain, it became known as Grimm Alfalfa. From its adopted home it rapidly spread over the Northwest, and its superiority is now so generally proven that it is rapidly superseding the Common Alfalfa. We have never known a failure in Michigan of true Grimm. Our Grimm Alfalfa seed is grown by Co-operative Growers' organizations, and certified by the proper State officers in the state where grown, and guaranteed by the Michigan State Farm Bureau, and is scarified seed. Write for prices.

ALFALFA (Common). Grown in Utah. The fields from which this seed was grown were carefully inspected by the Michigan State Farm Bureau. The seed is bright and plump, a beautiful golden color; free from dodder and all fowl seeds. Scarified and carefully tested for germination. The high altitude of the mountain states insures hardiness. Write for prices.

The CLOVERS

MEDIUM RED OR JUNE CLOVER. By far the most important of all clovers for practical purposes. It is a perennial, and grows about two feet high; very valuable for plowing under to enrich the soil, adding humus and nitrogen. We handle only one grade—the best—as it is folly to buy anything else. Sow in spring or fall, 8 to 12 pounds per acre, if used without other grasses. Farm Bureau prices.

MAMMOTH OR LARGE RED CLOVER. Mammoth Clover is quite distinct from Medium, growing to nearly twice its size; is coarser and a little later. It can be grown successfully on poorer soil than Medium Clover. It is used extensively for building up worn out land. Sow about 8 to 12 pounds per acre when sown alone. Farm Bureau prices.

ALSIKE CLOVER. A perennial, and the most hardy of all clovers. It prefers damp, loamy soil. It is extremely leafy, making hay of a fine texture. Does not readily winter kill, and is valuable to sow with other clovers and grasses, as it increases the yield of hay. It is the best clover for moist soil. Sow either in spring or fall, about six pounds per acre, when sown alone. Farm Bureau prices.

Medium
Red Clover.

WHITE BLOSSOM SWEET CLOVER. Once considered a noxious weed; now nearly equal in value to Alfalfa. White Sweet Clover is a biennial, and does not last so long as its cousin, Alfalfa, but it has a great mission. In pasture it will produce a greater flow of milk than even Alfalfa, and as much feed. Cattle are less liable to bloat. Stock soon learn to like the hay, and even prefer it to Alfalfa. We sold nearly twice as much Sweet Clover seed last year as Alfalfa. Our seed is grown in the Northwest, and the fields devoted to seed growing were inspected by Mr. Nicholson of the Michigan State Farm Bureau. Write for prices.

HUBAM. An annual white blossom Sweet Clover. It is probably worth while to plow under. It is claimed that it can be sown with oats, and after the oats are harvested the Sweet Clover will come on and make a large growth in the fall, when there would be nothing growing but weeds. If it does nothing more, it is worth while. Don't let land loaf. Write for prices.



White Blossom Sweet Clover.



Sudan Grass

A tall annual grass reaching the height of 7 to 9 feet when planted in rows and cultivated, and 4 to 5 feet when sown broadcast. The hay is greatly relished by all stock, and has exceptionally high feeding value. Is adapted to most soils. Farm Bureau prices.

Millet

Usually grows from 2½ to 4 feet high, and makes excellent hay. For hay sow broadcast 25 to 30 pounds per acre. May 1st to August 1st. Does well on dry and light soils. Farm Bureau prices.

Sand Vetch

Sand or Hairy Vetch shares with Sweet Clover the honor of giving the best results in restoring fertility to worn-out land or making poor sandy soils productive. Sand Vetch has no equal as a cover crop. It can be sown in the corn field just after the last cultivation, and it will make a mass of green stalks and leaves to plow under about the middle of May; or it may be sown after harvesting oats and plowed under for corn the next spring. Hay made from Sand Vetch is about three per cent higher in protein content than Alfalfa hay, and is more eagerly eaten by stock. When sown with oats or any spring grain, it will come on after crop is harvested and make splendid fall pasture, and can be plowed under the next spring for corn or potatoes. Always inoculate the seed unless Sand Vetch has been grown on the land within one or two years. Sow from 30 to 40 pounds per acre. Our Sand Vetch is better than 99 per cent pure. Farm Bureau Seed at Farm Bureau prices.



A Field of Timothy.

Timothy

The most important of all grasses for hay, and is adapted to a wider range of conditions than any other variety of grass. It is the hardiest of all grasses and excels in feeding value. Sow early in the spring or fall, 10 to 12 pounds per acre if sown alone; less if mixed with other grasses. Farm Bureau prices.



Sand Vetch.



Fodder Corn

Dry Fodder Corn is the most satisfactory substitute for hay. It nearly if not quite equals in feeding value timothy and clover. All stock eat it greedily and thrive on it.

It yields from three to five tons of dry fodder per acre, being a much larger yield than timothy and clover will give, making a far more profitable forage crop to grow.

It can be sown as late as July first, with a reasonable assurance of a fair growth of fodder, making it an ideal catch crop, as the work can be done after the haying rush is over. It can be sown at the usual corn planting time and sowing rape between the rows after the last cultivation, it makes splendid summer pasture for hogs or sheep.

Leaming Fodder Corn

This variety is preferred by most dairymen for filling silos, for the reason that the corn matures the large ears (in any ordinary season it will ripen), and gives more grain in the ensilage. Stalks very large and leafy, and grows an immense amount of forage to the acre. It requires from one peck to one-half bushel of seed per acre, drilled in rows one way. Farm Bureau prices.

Red Cob Ensilage

A gigantic Southern white corn, producing immensely large ears, rarely maturing in this latitude. The stalks grow from 12 to 15 feet in height, with long broad leaves from the ground to the tassel. Stalks very thick at the butt, juicy, tender and as sweet as sugar corn; and all stock eat it with relish. Many dairymen prefer it for the silo, for the reason that it produces such an enormous

amount of silage (from 15 to 25 tons per acre). It is especially valuable for the dry fodder when cut and kept in the shock until fed. It will produce a good crop of forage, even when sown as late as July. Red Cob Ensilage is one of the best crops to raise for the purpose of killing quack grass or other foul weeds when the land is badly infested. For killing quack grass plow the sod late in the fall, which, with the freezing of the roots will greatly injure the plants, cultivate with a spring tooth harrow every week in April and May. Plant Red Cob ensilage in drills, using one bushel of seed per acre, smothering the quack and other weeds. For silos or fodder, sow from one-half to one bushel per acre. Farm Bureau prices.

EUREKA ENSILAGE CORN. Will produce more tons of silo corn per acre than even Red Cob Ensilage corn. Stalk will grow 12 to 15 feet in height, with broad leaves from the ground up. Each stalk will bear from one to three long ears. Very rapid grower and can either be planted in hills or in drill rows. Farm Bureau seed. Write for prices.

PEDIGREED SEED CORN. The rules for registration established by the Michigan Crop Improvement Association, co-operating with the Michigan Agricultural College and the Michigan State Farm Bureau, are very rigid, and insure trueness to type and purity of variety, freedom from foul seeds, adaptability to Michigan weather and soil conditions. We will have certified Golden Glow, Picket Dent and Silver King. Write for prices.

PEDIGREED SEED OATS AND BARLEY. Write for prices and descriptions.

FERTILIZERS

We Are Unable to Get Prices On Fertilizers at Present, But Our Prices Will Be Right Or We Cannot Expect to Serve You

HIGH GRADE COMPLETE.

2-8-10; 2% available Nitrogen; 8% available Phosphoric Acid; 10% available Potash. High Grade Complete is well adapted to muck soil and a specially good fertilizer for Celery, Onions, Potatoes and all root crops. **Write for prices.**

MICHIGAN SPECIAL.

2-10-4; 2% available Nitrogen; 10% available Phosphoric Acid; 4% available Potash. Michigan Special should give satisfactory results on the lighter soils and is well fitted for corn, where an application of Potash is needed; also a good fertilizer for general crop on soil deficient in Phosphoric Acid and Potash. **Write for prices.**

GENERAL CROP.

2-12-2; 2% Nitrogen; 12% Phosphoric Acid; 2% Potash. The 2-12-2 is probably the best all-around and complete fertilizer and has been used to a great extent throughout Michigan. It is usually applied to crops such as corn, wheat and oats on soils which have not been well manured or upon which legumes in regular rotation have not been grown. This formula should be a good buy.

BLACK LAND SPECIAL.

0-8-10; 8% Phosphoric Acid; 10% Potash. Especially adapted for muck soils or land lacking Phosphoric Acid and Potash and well supplied with Nitrogen. For celery, lettuce or root crops. **Write for prices.**

SPECIAL TRUCK.

3-8-6; 3% available Nitrogen; 8% available Phosphoric Acid; 6% available Potash. Special Truck gives excellent results for potatoes, vegetables of all kinds, is well fitted for corn on soils requiring Potash; in fact, a high grade fertilizer for any crops in which the increased yield will sell for enough to pay the cost of higher priced goods. **Write for prices.**

2-8-16; 2% Nitrogen; 8% Phosphoric Acid; 16% Potash. Celery and Potato Special. Test plots last year proved that for growing celery it was the most profitable fertilizer to use. Celery fertilized with 2-8-16 was harder, more crisp, heavier crop and better keeper, than where manure alone or fertilizer with less potash was used. On muck soils where celery and onions are the main crop we recommend 2-8-16 above all other fertilizers. **Write for prices.**

MURIATE OF POTASH.

The best form of Potash for fruit or muck vegetable crops. All root crops draw heavily on the soil for potash, especially potatoes and onions. Most muck soils are lacking in Potash and celery will grow a much firmer stalk of far better quality when either a high grade fertilizer, high in Potash or Muriate of Potash is applied in liberal quantities. **Write for prices.**

PULVERIZED HEN MANURE.

ANALYSIS:—Nitrogen 4.1%.
Equal to Ammonia 5%.
Phosphoric Acid 2.7%.
Equal to Bone Phosphate 6%.
Potash 1.3%.

Pulverized Hen Manure analysis shows nearly double the plant food of Pulverized Sheep Manure and is sold nearly as cheaply. The Hen Manure is collected mainly from unloading cars in which poultry has been shipped, is dried and finely ground, so that it can be evenly applied, and not burn vegetation. **Price, \$2.50 per 100 lbs.**

PULVERIZED SHEEP MANURE.

This is collected from the Stock Yards, heated to kill weed seeds, ground and bagged in 50 and 100-pound bags. **Price, \$2.50 per 100; 50 lbs. for \$1.50.**

ACID PHOSPHATE.

Guaranteed Analysis.

Available Phosphoric Acid16%
This is an exceptionally good grade of Acid Phosphate and often exceeds the guaranteed analysis.

If you want Acid Phosphate for home mixing or for use by itself, we are sure these goods will please you.

We are in position to name the very best prices consistent with quality goods in carloads or in mixed cars with other fertilizer. Let us quote you. **Write for prices.**

Acid Phosphate will increase the yield of wheat. Try it. It will pay you, and the whole world needs wheat.

STEAMED GROUND BONE.

Guaranteed Analysis.

Ammonia (Bone) 3.83%
Nitrogen (Bone) 3.15%
Phosphoric Acid 24.50%
Equivalent to Bone Phos. of Lime 53.53%

This is a soft, steamed bone and the staple article for fall seeding. It is wholly animal matter. It is especially adapted for use on grain, alfalfa, meadows, and for greenhouse purposes. **Write for prices.**

ANACONDA TREBLE SUPERPHOSPHATE.

44 per cent.

One bag of Anaconda Treble Superphosphate, 44% available Phosphoric Acid, contains nearly as much plant food as three bags of common low-grade, 16% Acid Phosphate. Why pay freight on two tons of filler, when one ton of Superphosphate will furnish practically the same amount of fertilizer as three tons of the lower grade. **Write for prices.**

NITRATE OF SODA.

Nitrate of Soda in its commercial form is 95% pure and contains about 15 1/2% of Nitrogen, equal to about 19 1/2% of Ammonia.

As the source of Nitrogen or Ammonia in home mixed fertilizers, Nitrate of Soda is the most desirable, particularly for all quick-growing crops and when early maturity is desired.

SULPHATE OF AMMONIA.

Used largely in orchards for practically all kinds of fruit; especially valuable for melons and tomatoes, which thrive better in a slightly acid soil. A form of nitrogen which is coming into general use with fruit men and truck growers. **Write for prices.**

SOLVAY GROUND LIME.

Practically all the land in Michigan needs Ground Lime Rock to neutralize the acid in the soil. In other words, to sweeten the soil. It is practically indispensable for alfalfa and similar crops. In fact, should be used freely on most land for any crop. Most lawns would be benefited by an application of Ground Lime Rock.

1 sack, 100 lbs.	\$1.00
5 sacks, 500 lbs.	2.00
10 sacks, 1000 lbs.	3.50
20 sacks, 2000 lbs., f. o. b. Grand Rapids	6.00
In Bulk, 200 lbs., f. o. b. Sibley, Mich. Write for prices.	
In sacks, 100 lbs., f. o. b. Sibley, Mich. Write for prices.	

Special carload prices on application
Special price when loaded in mixed carloads with other fertilizers.

We strongly recommend the liberal use of Ground Lime.

HYDRATED LIME.

Hydrated Lime is much quicker in action than either Ground Lime Stone, Marl, or Solvay Lime. While the price is higher it does not require as heavy an application and goes further. **Write for prices.**

HOME MIXERS' FERTILIZER TABLE.

Any Formula at a Glance.

Exact number of pounds of each material required for the equivalent of 2000 lbs. of Ready Mixed Fertilizer of analysis desired.

Percent- age or units desired	Ammonia from Nitrate of Soda	Available from 14% Acid Phosphate	Phos. Acid from 16% Acid Phosphate	Actual Potash from Muriate of Potash	Potash from Kainit 12%
1	110	143	125	40	166
2	220	286	250	80	333
3	330	429	375	120	500
4	440	571	500	160	667
5	550	714	625	200	833
6	660	857	750	240	1000
7	770	1000	875	280	1167
8	880	1143	1000	320	1333
9	990	1286	1125	360	1500
10	1100	1429	1250	400	1667
11	1210	1571	1375	440	1833
12	1320	1714	1500	480	2000

Example:—To make a fertilizer containing 4 per cent Ammonia, 6 per cent available Phosphoric Acid, 10 per cent Potash. By looking in the percentage column for 4 per cent and in the Nitrate column we find 440 lbs., in the 16 per cent Acid Phosphate column opposite 6 per cent we find 750 lbs., and in the Muriate of Potash column opposite 10 per cent we find 400 lbs., the sum of the 440 lbs., 750 lbs., and 420 lbs. is 1,610 lbs., which is equivalent to and contains the same amount of plant food as 2,000 lbs. of the 4-6-10 manufactured fertilizer. Any combination can be figured in the same way.

RED SNAPPER PLANT FOOD.

A highly concentrated fertilizer for house plants, ferns and flowers. Equally as good for outdoor flower and vegetable garden. Made from thoroughly sterilized, aerated, steam-dried fish bones and nitrogenous cartilage, together with pulverized tobacco stems.

ANALYSIS:—Nitrogen 5%; available Phosphoric Acid 4%; insoluble Phosphoric Acid 8%; total Phosphoric Acid 12%; Potash 1.25%.

10-ounce can, regular price, 25c. **Our price, 20c.**
24-ounce can, containing 8-oz. pkg. Calcium Hydroxide for Acid soils. Regular price, 50c. **Our price, 40c.**
If in need of larger quantity will make reduced prices on several packages, **3 for \$1.00.**

INSECTICIDES

"NICO FUME" LIQUID.

Nicotine Solution for fumigating or spraying. A highly refined solution of "free" Nicotine, containing 40 per cent of Nicotine.

8-lb. tins	\$15.00 per tin
4-lb. tins	8.00 per tin
1-lb. tins	2.25 per tin
¼-lb. tins .....	.75 per tin

"BLACK LEAF 40."

(Sulphate of Nicotine).

A concentrated solution of Nicotine Sulphate containing 40 per cent Nicotine. For sheep and cattle dipping and spraying for Pear Thrips, Green Aphid, Pear Psylla, Hop Louse, Black Aphid, Woolly Aphid, etc.

10-lb. tins	\$13.50 per tin
2-lb. tins	3.50 per tin
½-lb. tins	1.25 per tin
1-oz. bottle .....	.35 each

HALL'S FREE NICOTINE.

This powerful insecticide contains Nicotine in the free state, particularly adapted for indoor spraying. Diluted according to directions, it makes a deadly spray costing only 2½ cents per gallon.

8-lb. tins	\$15.00 per tin
2-lb. tins	4.00 per tin
½-lb. tins	1.40 per tin

HALL'S NICOTINE FUMIGATOR.

A specially prepared fumigating compound saturated with pure Nicotine. Easy to use—because a conical measuring dipper is inclosed in each tin. Economical—because you can measure out the exact quantity needed. One cone produces 7000 cubic feet of deadly Nicotine fumes. Three cones will fumigate a house (20x100 feet) at a cost of 25 cents.

10-lb. tins	\$8.50 per tin
2½-lb. tins	2.50 per tin
1-lb. tins	1.25 per tin

PURE PARIS GREEN.

This is strictly pure Paris Green of the very best quality and will give satisfaction. Write for prices.

¼-lb boxes .....	.....
½-lb. boxes .....	.....
1-lb. boxes .....	.....
2-lb. boxes .....	.....
5-lb. boxes .....	.....
14-lb. kits .....	.....
28-lb. kits .....	.....
56-lb. kits .....	.....
100-lb. kegs .....	.....

We also wholesale Paris Green and give special prices to dealers. It will pay dealers to get our prices before buying. We can save you money.

Remember, that we are large handlers of Paris Green and usually have stock for immediate shipment when others are out.

GRASSELLI LIME SULPHUR SOLUTION.

Grasselli Lime Sulphur Solution is a clear, cherry-colored liquid, free from sediment and works through the nozzle easily. It is used as an insecticide to control San Jose Scale, Blister Mite and similar sucking or scale insects. For this purpose it is used at a dilution of 1 gallon to 7 to 9 gallons of water and applied during the dormant season, either after the leaves drop in the fall or before the buds open in the spring. The spring application, just before the buds open, will assist in controlling Leaf Blister Mite, Plant Lice, and Peach Leaf Curl, in addition to scale insects, and is usually considered advisable in well-cared-for orchards where the scale is already under control and where the entire orchard can be gone over in the spring.

The fall application is advisable where trees have not been previously sprayed and are badly infested with scale or where the size of the orchard, together with climatic conditions, renders spring spraying impracticable. Recent investigations in some sections indicate that a dormant application of Lime Sulphur Solution to Peach Trees as soon as possible after the leaves drop in the fall is as effective as the Spring application for controlling Peach Leaf Curl.

For small quantities, use 1 pint Lime Sulphur Solution to 1 gallon of water for dormant spraying.

Grasselli Lime Sulphur Solution is also used as a summer spray to control Scab, Leaf Spot, and similar fungous diseases on apples and pears.

On apple and pear foliage, it should not be used stronger than 1½ gallons to 50 gallons of water. Some prefer 1¼ gallons to 50 gallons of water.

For small quantities, as a summer spray on foliage, use not over 2½ ounces of Lime Sulphur Solution to 1 gallon of water.

The foliage of stone fruit, especially peaches, is very tender and hence liable to spray injury.

Lime Sulphur Solution as a summer spray replaces Bordeaux Mixture. The uses of Lime Sulphur Solution and Bordeaux Mixture in same application is unnecessary.

GRASSELLI ARSENATE OF LEAD.

Kills most leaf-eating insects. Mixes readily with water. Stays in suspension. Sticks to the foliage.

Grasselli Arsenate of Lead is used to destroy leaf-eating insects such as Codling Moth, Curculio, Canker Worm, Tussock Moth, Elm Leaf Beetle, Gypsy and Brown Tail Moths, Potato Beetle and similar insects that feed on the foliage of fruit trees, shade trees, vegetables, flowers and shrubbery.

Mix with the required amount of Arsenate of Lead enough water to make a thin paste that will pour readily before putting into the spray tank.

Apply thoroughly in a fine mist under good pressure as soon as the insects put in their appearance or where past experience has shown that certain insects are to be expected at a certain time, it is well to apply Arsenate of Lead in advance of their appearance.

It should always be borne in mind that all insect pests can be more readily killed when young and before they have attained their growth. Grasselli Arsenate of Lead may be used with either Lime Sulphur Solution or Bordeaux Mixture, combining in one application treatment for both insects and fungi.

Grasselli Arsenate of Lead Powder may be mixed with water and applied as a liquid spray or it may be used as a dust spray.

If applied as a liquid spray it is usually used 1 to 1½ pounds to 50 gallons of water or 3 to 4 teaspoonfuls to 1 gallon of water. For Potato Beetles and other insects that are hard to kill use 2 to 3 pounds to 50 gallons of water or 6 to 8 teaspoonfuls to 1 gallon of water. If used in the dust form it may be applied as received by finely dusting on the foliage or it may be mixed with equal bulk of freshly burned wood ashes or powdered lime; or with Superfine Sulphur at the rate of about 85 parts Superfine Sulphur to 15 parts of Arsenate of Lead Powder.

GRASSELLI BORDEAUX MIXTURE POWDER.

Bordeaux Mixture Powder is recognized as one of the most effective products to use to prevent fungi, such as Potato Blight, Grape Black Rot, Bitter Rot, and Blotch on apples and similar fungous diseases on fruit trees, shade trees, vegetables and rose bushes.

This product being a fungicide, should be applied in advance of the period of infection of the disease.

Do not use on peach, Japanese plum or other similar tender foliage.

Grasselli Bordeaux Mixture Powder may be used in combination with Arsenate of Lead, Sulphate of Nicotine, or both, but should never be used in combination with Lime Sulphur Solution.

Grasselli Bordeaux Mixture Powder is convenient to use. It is uniform in quality, and does away with the trouble and uncertainty of preparing Bordeaux Mixture at home.

As a general rule, use 6 to 8 pounds Grasselli Bordeaux Mixture Powder to 50 gallons of water or dilute spray, and for small quantities use 6 to 8 tablespoonfuls Bordeaux Mixture Powder to 1 gallon of water.

Best results are obtained when the required amount of Bordeaux Mixture Powder is mixed with enough water to make a thin paste that will pour readily before putting into the spray tank.

GRASSELLI CALCIUM ARSENATE POWDER.

Calcium Arsenate has been developed as an arsenical insecticide. It is especially recommended as a substitute for Paris Green for use on potatoes and other vegetables and for this purpose should be used at the rate of 1½ to 2 pounds to 50 gallons water or Bordeaux Mixture, ready for use. If used as a dust it may be applied as received with a dust gun, or it may be mixed with an equal quantity of Hydrated Lime or other suitable carrier and dusted on the foliage.

Some authorities recommend Calcium Arsenate for use on apples and pears. There is no chemical reaction when mixed with dilute Lime Sulphur Solution, as is the case with most arsenical insecticides. On apple and pear foliage it should be used at the rate of ¼ to 1 pound to 50 gallons of water, dilute Lime Sulphur Solution or Bordeaux Mixture. For small quantities use 2 teaspoonfuls of Calcium Arsenate Powder to 1 gallon of water. If used with water or Lime Sulphur Solution, add about 3 pounds hydrated or slaked lime to each 50 gallons dilute spray.

Never use Calcium Arsenate on peaches, plums and other stone fruits.

Grasselli Calcium Arsenate Powder contains at least 40 per cent Arsenic Oxide and not over 1 per cent water soluble Arsenic. It is a fine fluffy powder that stays in suspension well and distributes evenly.

PARA-DICHLOROBENZENE.

Kills the Peach Tree Borer, and is recommended on trees six years of age or over.

Should be applied about the first of September in Michigan. In case fall application has not been made, a spring treatment should be made, but it is better to treat in the fall, after all the eggs have been hatched and one application will give a high degree of protection. Write for price.

**IRON KING STEEL
FRAME SEEDER
NO. 4.**



THE IRON KING SEEDER No. 4 is constructed of steel throughout, has fewer parts, and is less complicated than other seeders. Thus it is indestructible, and will wear an ordinary life-time.

The V-shaped Shoe, which originated with us, makes it possible to sow all seed in an exact line at a uniform depth. An even stand of plants is thus assured, which means less work and less expense in cultivation of crop.

The Iron King has 15-inch front and 13-inch rear wheel, with 2½ inch tires. The rear wheel is kept clean by a scraper, as illustration shows. The chain can be tightened by reversing the boxes on the drive wheel.

The Iron King is shipped complete, including two Seed Plates and Six Agitators, to sow all kinds of seed. No. 10 or Star Agitator for large seed, No. 11 for nearly all seed, No. 12 Brush for delicate seeds, or those which are easily broken, and No. 13, a set of three Agitators with one, two and three prongs, which drop seed 18 inch, 9 inch and 6 inch, respectively.

The hopper may be easily removed by pushing the eccentric button that holds it, to one side.

For sowing onion seed for sets, we make an attachment that takes the place of regular shoe and sows a wide row.

The Iron King is protected by a heavy coat of hard enamel and packed in durable cartons for shipment.

PRICE, \$12.00.

**Iron King Seeder With
Fertilizer Attachment
No. 5.**



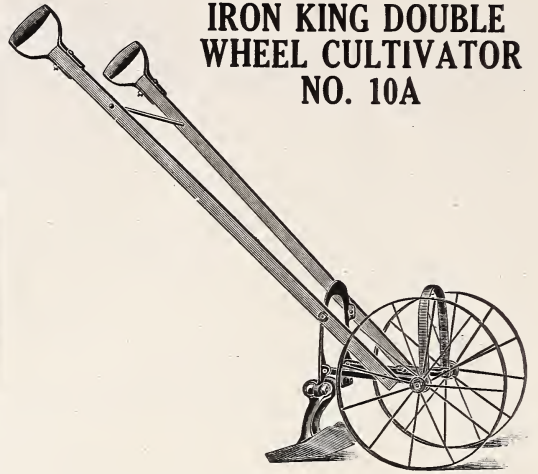
Assuring the proper distribution of Fertilizer under your seed is quite as essential to the production of vigorous plants as the selection and sowing of the seed. Among all the various devices used in the distribution of the various grades of fertilizer we believe the Iron King Fertilizer Distributor has no peer.

FERTILIZER ATTACHMENT COMPLETE.

This attachment fits the Iron King Seeder No. 4, and is attached by removing the seed hopper, replacing with Fertilizer Attachment, and adding sufficient links of chain to make proper length. This attachment is built for sowing commercial fertilizer from 400 lbs. to 800 lbs. to the acre, by using either the large or the small sprocket on the upper shaft of the fertilizer attachment. This attachment is assembled with the small sprocket on the shaft, and will sow about 800 lbs. to the acre.

Price, Seeder with Fertilizer Attachment, \$15.50.

**IRON KING DOUBLE
WHEEL CULTIVATOR
NO. 10A**



In building this Cultivator our aim has been to provide the most Serviceable and Durable machine on the market. This Double Wheel Cultivator enjoys a reputation second to none. The equipment for this Cultivator is complete. Points of interest concerning the Iron King Cultivator are:

1. The wheels are 16 inches in diameter, with one-inch tire.
2. The arches are made of steel and malleable iron, and are 16 inches high, permitting cultivation of plants until matured.
3. The knuckle joint holds the tools rigidly in place, and allows most complete adjustment possible.
4. By setting wheels on inside of arch a single wheel cultivator effect is obtained which enables cultivation between or astride the rows.

The Cultivator with hoes only is what is used most for all kinds of crops. The tools used with this Cultivator will work in any kind of soil.

The equipment for this Cultivator consists of—
1. One pair curved, pointed hoes, made on the most improved plan, with detachable wings to turn away dirt from small plants. These hoes, or knives, as some call them, will be furnished on all Cultivators, unless otherwise ordered.

2. Two gangs of teeth, three on each side.
3. Two diamond-pointed hoes for work in the center of the rows.
4. Our Special Weeding Hoe, used especially for weeding behind.
5. One Onion Lifter, for rooting out onions in the fall.
6. Our Double Discs, for new or rooty ground, have no equal. They can be set to throw dirt to or away from plants.
7. Furnished with either "D" or plow handles.

PRICE, \$6.50.

**“NORCROSS” HAND CULTIVATORS
AND WEEDERS**

We handle the “Norcross,” a most complete garden hoe, and a modern type of hand cultivator.

PRICES.

5-prong, 4-foot handle, each.....	\$0.60
3-prong, 4-foot handle, each.....	.50
3-prong, “Midget,” 9-inch handle, each.....	.25

Scollay’s Putty Bulb

A useful tool for applying liquid putty in glazing greenhouses, etc. Price, each, \$1.25.

Scollay’s Angle Neck Sprinkler

For sprinkling plants, flowers, clothes, etc. Price, each, 75c.

BANNER COMPRESSED AIR SPRAYER NO. 22



This Sprayer is adapted for all spraying purposes, and is durable and easily operated.

Heavy 4-gallon galvanized steel tank, well riveted to stand heavy pressure.

Price, not postpaid, \$6.50.

JIM-DANDY SPRAYER

Patents Applied For.

SOMETHING NOVEL—SOMETHING NEW.



The Jim-Dandy works twenty-five times more rapidly than any hand sprayer, and is much more efficient. To operate, simply work plunger handle slowly; one stroke will cover a large area, and no liquids wasted. Sprays anything and everything.

The reservoir is made of heavy galvanized iron, capacity two quarts; all other parts are entirely of brass, including ball check valves and nozzle. The Golden Spray Nozzle furnished is adjustable for large fine mist spray, or long distance coarse spray, as desired.

It is a Jim-Dandy Sprayer, neat and attractive in appearance, durable in construction and works as

"QUICK AS LIGHTNING."

When empty it weighs two pounds, and when loaded ready for work, the weight is 6 pounds.

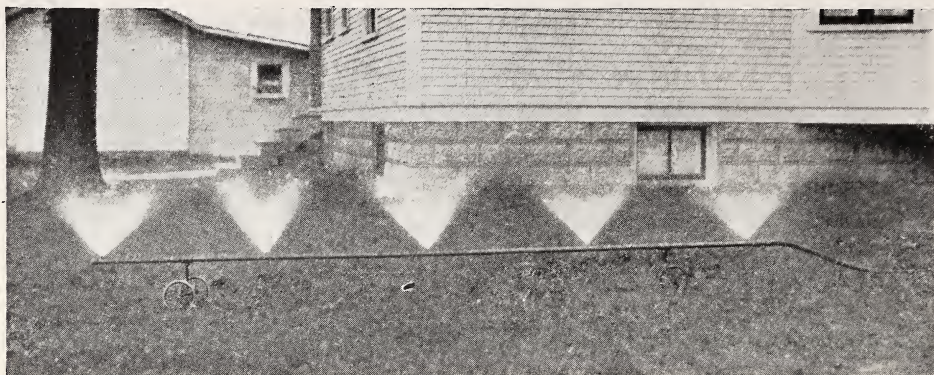
Retail Price, not postpaid, \$3.50 each.

March Portable Oscillating Rain Machines

This machine thoroughly waters one acre in eight hours, when set in a new location every half hour. While it is not quite so convenient as having the acre piped to water the whole field at once, it is a great saving in money, and will do equally as good work.

It waters 2400 square feet at one setting. It is portable, weighs only fifty (50) pounds, and can be moved with one hand while it is still oscillating and sprinkling. As the picture shows, it is mounted on four wheels, and is equipped with the March flexible nozzles and the March Hydraulic Motor. This motor will operate perfectly on from fifteen to seventy-five pounds of pressure. Price, f. o. b. Grand Rapids, Michigan, \$65.00.





MAID-O-THE-MIST PORTABLE SPRINKLER

For Lawns and Gardens of the Average Home

Here is a simple device that solves the problem of properly sprinkling home lawns and home gardens. Mounted on rubber tired wheels the Maid-O-the-Mist may be easily moved from place to place while in operation. Only a few changes of position are necessary to completely water the average city lawn and it can be used very efficiently for sprinkling strips of grass between the curb and the sidewalk without waste.

The Maid-O-the-Mist is non-oscillating. It sends up five units of fine spray which cover a 9x15 foot space or 135 square feet at each setting. Owing to the construction of the nozzle (our patent) the Maid-

O-the-Mist will discharge double the amount of water obtained from the ordinary hose nozzle and will distribute it evenly and in a fine mist over the entire area. This spray will not form puddles nor injure the tenderest foliage, which even amateur gardeners know is one of the principal faults with the average nozzle or spray. Sprinkling to be most effective should be in such a way that the ground is gradually saturated. If the stream is too hard it disturbs the roots and runs off before being absorbed by the earth. The Maid-O-the-Mist weighs 20 pounds. It is easily moved while in operation and on account of the area it covers, requires little attention.

Price \$12.50 F. O. B. Grand Rapids, Mich.

March Patented Flexible Nozzle

For Outdoor Irrigation.



This nozzle throws a solid stream for about half the distance it travels then breaks up into fine drops which penetrate the ground and waters evenly without packing the soil. The nozzle being flexible is a great help

in installing in case of an error in drilling the holes for the nozzles—with small pliers the nozzle can be bent until the stream throws true. This nozzle is non-cloggable which is a great advantage over the common nozzle. Price, \$0.06 each.



Greenhouse Nozzle

This mist nozzle does not drop baffle water, and no puddles of water collect under the nozzle. This works perfectly under either high or low pressure. As the pressure increases the spray becomes wider and broader, unlike other nozzles which spray in a wide but narrow line. Price, \$0.08 each.



Shrubby Nozzle

This nozzle was designed for borders and shrubby clumps on small lawns. It throws an abundance of coarse mist that penetrates to the center of the shrubbery and waters thoroughly. This nozzle is used on the Maid-o-the-Mist. Price, \$0.25 each.

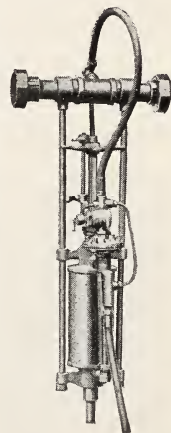


MARCH OSCILLATING MOTOR

Our motor is a compact water operated piston type motor, deriving its power from the supply of water in the irrigating pipe line. It is the result of years of engineering and is perfect in construction and design. It is manufactured from the highest grade of brass, all machined parts are perfect, and are assembled and tested by experts. The motor is adjustable to speed and stroke, by simple arrangements under instant control of the operator. There is nothing about the construction that will rust out and little that will wear. Valve parts are enclosed to exclude dirt and sand, and the valve itself is practically wear proof.

Speed of Action and Limit of Stroke.

The speed at which the nozzle pipe is turned (oscillated) and the distance which it moves in turning (oscillating) are both easily controlled by an exceedingly simple adjustment at the hydraulic motor. Wing nuts permit the "distance posts" to be moved to control the distance of oscillation or stroke, and pressure valve controls speed of oscillation. Any March Oscillating Mist Machine will operate perfectly on from 15 to 75 pounds of water pressure. Price, \$40.00.



March Oscillating Motor.



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Our Grass Seeds Make the Finest Lawns.

Lawns and Lawn Grass Seed

There is nothing which adds more to the external attractiveness of a home than a beautiful lawn. You may have such by providing the right conditions.

To obtain a good lawn it is very essential that care be used in selecting the seed. Many people are under the impression that there is danger in getting weed seed in lawn mixtures. This impression no doubt has been formed because it is a common practice to top dress with rich dirt taken from some location that has not been under cultivation; hence contains the seeds that are common to that locality. When such soil is used, it should be cultivated long enough to free it from weed seeds; then sow a reliable lawn mixture, when better results will be obtained than by sodding, and at much less expense.

To start a new lawn from seeding, have the soil thoroughly spaded up, enriched with commercial fertilizer (3-8-6, see page 28), or better still with pulverized hen manure. (See page 28.) Level and roll it well to make it compact. Select a still, damp day for seeding; sow one-half of the seed from North

to South, and half from East to West; rake it over and roll again. When the grass comes up, replant bare or thin spots.

After the lawn is started, it still needs attention, as does the old lawn. Lawn Grass is a voracious feeder, and must have the elements necessary to its growth. While stable manure contains these elements, its unpleasant features, unsightliness, odor and weed seeds combine to make it highly objectionable.

Pulverized Hen Manure (See page 28), supplies the plant food in a concentrated form, without the objectionable features. Hen Manure contains nearly twice the amount of plant foods that Pulverized Sheep Manure does, and is not so smelly. It is easy to apply and is a balanced ration for grass. Most of the sunny lawns need lime, as Kentucky Blue Grass and White Clover do not thrive in a sour soil. An application of 100 pounds of Hydrate Lime (See page 28), will be very beneficial. For shady lawn, would advise the sowing of different seed. Our Shady Lawn Grass is composed of grasses that will grow in some shade, and that do better on acid soil.

Lawn Grass Seed

Sunny Lawn Mixture This mixture contains no annual grasses, but only those of lasting value and hardness, and will produce an even, dense growth of permanent sward, which improves in velvety density with age. Write for prices.

Shady Lawn Mixture Will make a dense, thick growth in light soils, and will make a very satisfactory lawn even in shady situations. This mixture is composed mostly of imported grasses, several of them quite expensive. Write for prices.

GRAND RAPIDS GROWERS' ASSOCIATION
GRAND RAPIDS, MICHIGAN